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CONTENTS

The Application of Case Teaching Method in Business English Translation Teaching in Higher Vocational Colleges

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Abstract: Case teaching method is a common method in education teaching. In addition to playing an important role in daily teaching, it can also be widely used in different fields, especially in practical teaching with efficient application value. Higher vocational Business English translation course is a professional and practical subject set up by higher vocational colleges. In the daily teaching process, it not only cultivates students' oral expression ability and translation ability by means of on-site simulation, but also adopts case teaching method to help students understand the learning content and improve their English level. This paper focuses on the analysis of the application of case teaching method in the teaching of business English translation in higher vocational colleges, hoping to provide reference for practitioners.

Keywords: Higher vocational College; Business English translation course; Case teaching method; Application

1. INTRODUCTION

In recent years, with the rapid development and progress of the Times, our economy and trade are strengthening day by day, and constantly improve the overall strength of our country, occupying a favorable position in the development of the world economy. Social and economic development is increasingly toward globalization, driving our country and other countries to achieve harmonious trade relations, and build a good international economic bridge. Business English talents play an important role in international trade, so higher vocational colleges actively set up business English translation courses, take advantage of new teaching methods, case teaching method, and deepen the cultivation of students' language application ability and practical ability through situational simulation, so as to meet the social demand for business English translation talents and expand the business English talent market.

2. CASE PREPARATION

In the classroom teaching process of business English translation in higher vocational colleges, case teaching method mainly carries out the corresponding teaching content through cases. If the appropriate cases are not selected in the specific teaching process, it is likely to reduce the quality of classroom teaching and affect the improvement of students' English ability. Therefore, in this case, it is repeatedly emphasized that English teachers should make full preparation for case teaching in advance before using case teaching method, consider the content of textbooks and select cases that meet the actual situation, ensure rich classroom content and stimulate students' interest in learning [1]. Taking the teaching of "Business card translation" as an example, teachers are required to start from the following aspects in the process of case selection: First, the authenticity of the case. Vocational biology English translation teaching is closely related to social economy, and most of the translation teaching activities come from daily reality. When teachers define cases, they pay special attention to the authenticity and life brought by the cases, and try their best to match the reality, hoping to bring good practical experience effect to students. If the cases used by teachers in daily classroom teaching are in a virtual state and students suspect the authenticity of situational teaching, then the case teaching will be transformed into role game teaching, which is difficult for students to directly bring them into the situation and cannot cultivate students' translation ability through practice, resulting in the decline of students' comprehensive English level. Based on this, English teachers can only use real cases to guide students to take the initiative to participate in activities and truly complete the teaching task. This requires teachers to collect a wide variety of business cards from different perspectives and levels before carrying out the teaching of "business card translation". According to the teaching objectives and students' current English translation ability, teachers should select business cards suitable for their English level improvement as teaching cases, so as to attract students' attention and arouse their strong curiosity. Secondly, the typicality of the case. Higher vocational business English translation teaching in the process of case selection should also pay attention to the typicality. To be specific, the selected cases must consider the content of the textbook, take the typicality as the starting point, and fully reflect the universality and representativeness in daily classroom teaching. In this way, if students encounter similar problems during the translation practice in the future, they will come up with solutions as soon as possible, so as to further train their coping ability. For example, in the teaching process of "business card translation", teachers often use two forms of identity identification and business behavior identification as teaching business cards. the identification type of business cards mainly include important information such as role identity, unit identity and position, and they often appear in real roles such as government units, finance and schools. Business

behavior type of business cards are mainly concentrated within the scope of business, most suitable for business operators or sales personnel. During this period, teachers correctly guide students to translate key information such as name, position, company name and address on business cards, which effectively improves students' English translation professionalism and continuously strengthens their translation ability. Finally, the pertinence of the case. During case selection, teachers should repeatedly focus on the pertinence of cases and select cases consistent with teaching objectives and teaching content. For example, in order to quickly improve students' business card translation ability, in the specific course of business English translation teaching, students should prepare paper and electronic business names in both Chinese and English in advance, and choose business cards with rich content or different types as the main ones, so that students can fully understand the types of business cards and master the key points and skills of business card translation. Avoid unnecessary errors in future work [2].

3. CASE ANALYSIS

In the process of business English translation classroom teaching in higher vocational colleges, case analysis is also the top priority and becomes an important hub of connecting case teaching. When designing the classroom plan, English teachers will repeatedly study all teaching cases based on the textbook as the main body, convert them into case resources or texts to share with students, and guide students to choose their favorite learning content to prepare for the work. In addition, teachers can also encourage students to enrich their learning content with the help of extracurricular books and the Internet, so as to lay a good foundation for solving problems in the future.

When students discuss in class, they should make clear the division of labor, learning objectives and tasks in the way of group, and show the complete translation results in the form of cooperation. During this period, I actively improved the incentive mechanism, encouraged all students in the class to participate in group discussion of cooperative activities, and acted as the guide and assistant to ensure the orderly progress of cooperative activities. They can also conduct in-depth discussion in the way of independent answers, so that they can consciously elaborate the content of group case analysis, effectively enhancing the sense of participation and initiative of students. Therefore, this teaching process not only helps students to have an all-round understanding of the business environment, dig deep into their imagination and creative ability, and dare to express their opinions and views on issues in English, so as to further cultivate students' confidence in English learning.

4. CASE SUMMARY

After the end of the case analysis activity, the teacher will teach students to carry out targeted translation for a certain type of article, convert the professional words they have learned into their own summary mode, and master certain skills and rules. When students have a sense of familiarity with the case, they also have a certain understanding of the business environment, completely break the traditional memorization method, and form a preliminary summary framework for the article according to their own understanding, which can better create a deep impression [3].

5. CONCLUSION

In the process of business English translation classroom teaching in higher vocational colleges, case teaching method completely makes up for the shortcomings of traditional teaching methods, advocates students as the main body of class, encourages them to actively participate in class activities, constantly absorb new knowledge and accumulate rich practical experience. Therefore, in the process of specific application of case teaching method, teachers choose appropriate cases according to the teaching material and conduct cooperative discussion in the way of group unit, which not only cultivates students' independent learning ability, but also subconsciously enhances the awareness of problem solving, learns to analyze and solve problems by using cases, and forms a complete case analysis report. Fully demonstrate the structure and specialization in the process of translation in the future, greatly improve students' English translation ability, and train them to become outstanding talents needed by the country in related fields.

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Study On Ideology in Higher Vocational Colleges

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Abstract: General Secretary Xi Jinping pointed out: " Ideological work is an extremely important work of the Party, is the heart of the country, the soul of the work. "To do ideological work well bears on the future and destiny of the Party, the long-term stability of the country, and the cohesion and centripetal force of the nation. To build a strategic ideology with strong cohesion and guiding power and to unite all the people in their ideals, beliefs, values, and morals is a strategic task that the whole Party must shoulder in the new era. Colleges and universities are the forefront of our party's ideological work, and to do the ideological work in colleges and universities is the core task of comprehensively strengthening the party's leadership over the education work, and it is crucial to do a good job in the ideological work in colleges and universities.
Keywords: Higher vocational colleges; College students; Ideology

1. INTRODUCTION

The ideological work of higher vocational colleges to a certain extent refinement degree is not enough, lack of effective guidance and control, therefore, as higher vocational colleges should be around professional construction characteristics and professional personnel training characteristics, strengthen the problem consciousness, for vocational school ideological work, do a good job of students' ideological education.

2. KEEP PACE WITH THE TIMES, ESTABLISH AND IMPROVE THE LIST OF IDEOLOGICAL WORK ISSUES AND RESPONSIBILITIES AT THE LEVEL OF THE PARTY GENERAL BRANCH (PARTY BRANCH).

2.1 Establish and improve the detailed rules for the implementation of the ideological responsibility system of the general Party branches (Party branches) of the secondary departments, and form a mechanism for clarifying, fulfilling, taking accountability and accountability.

The ideological work of the responsibility to reduce the departments, the student union, league, class and the youth corps cell construction and the whole process of the project, build a political quality, high political stance, political awareness, political judgment and political execution of strong ideological work team, form a complete ideological work system.

2.2 Pay attention to the guidance of public opinion and strengthen the construction of ideological positions.

Strengthen the guidance of departmental academic organizations, research institutions, student associations, implement the system of "one report" and "one thing one report", manage all propaganda, ideological and cultural positions, integrate ideological guidance and values into teachers' teaching and research and student learning, organize teachers and students to listen to the party and follow the party with outstanding results, and ensure political control; set up public opinion information staff, and try to monitor network public opinion. Use the website, WeChat, QQ and other new media platforms to establish, publicize and promote the good deeds, typical people and typical deeds around teachers and students.

2.3 Strengthen the publicity, education and guidance of professional culture, excellent enterprise culture, professional spirit and craftsman spirit.

Organize entrepreneurs and craftsmen (masters) on campus; make full use of alumni resources to set an example for students' career development. Hold lectures for outstanding graduates, organize students to enter the enterprise to feel the real working atmosphere of the enterprise, so that students can intuitively feel the excellent corporate culture and entrepreneurial spirit. To guide students to realize the mission from professional interest, professional identity, professional ability improvement, to establish professional confidence and professional mission, establish the mission of learning professional skills, serve the society and industrial development, and serve the motherland.

3. FOCUS ON PROFESSIONAL CHARACTERISTICS, AND ORGANICALLY INTEGRATE IDEOLOGICAL AND POLITICAL COURSES, PROFESSIONAL CULTURE, CAMPUS CULTURE AND IDEOLOGICAL WORK.

3.1 Cultivate a team of counselors with excellent political quality and good at ideological and political work, and do a good job in the management of the main position of ideological work.

Management the main position of ideological work; cultivate a team of student cadres who can assist the general branch and counselors to carry out ideological work, guide young students to correctly use the basic principles of Marxism, make scientific analysis and evaluation of western bourgeois theory and some problems in the current society, and enhance the ability to distinguish right from wrong.

3.2 Organize students to carry out thematic education and learning activities.

The fine traditional Chinese culture, the principles of Marxist philosophy, the theoretical system of core values of socialism with Chinese characteristics, the red culture, and the history of the Communist Party and the Youth League history, and realize that students can

"truly learn, truly understand, truly believe and truly apply" the mainstream socialist ideology.

3.3 Organize college students to carry out various forms of social practice, public welfare activities and volunteer actions.

Cultivate students 'strong sense of historical mission and social responsibility, enhance the consciousness of national rejuvenation, and enhance college students' sense of identity to socialist ideology.

3.4 Form an ideological work system and working atmosphere.

For example, the counselor should timely follow up the hot and focal issues of college students, organize the ideological class meetings; the secretary of the General League Branch gives league lessons for the members; the branch secretary and full-time deputy secretary give party lessons for active applicants

3.5 Give full play to the important role of campus culture as an ideological carrier.

The socialist core value system will be permeated into all aspects of campus culture, and an effective ideological carrier of colleges and universities will be constructed, so that college students can accept the thinking mode and behavior mode led by the socialist mainstream ideology imperceptibly, and put it into the heart.

4. CONCLUSION

Promoting the "safety" construction of the ideology in colleges and universities " is conducive to consolidating the position of Marxist guiding ideology, to cultivating and practicing the socialist core values, to promoting the goal of education through the whole process of higher education teaching management, and it is conducive to improving the recognition of the socialist system among teachers and students in colleges and universities. In this process, our ideological work team in colleges and universities should not only have profound ideological theory foundation, also good at using theory to guide practice, and the ideological work responsibility system to the party branch, league, student groups, to the dormitory, to the students into the brain, heart, into action, let the teachers and students in the "three education" big atmosphere, in the lively, rich and colorful social activities, campus activities, class activities to experience, to identify with our the mainstream socialist ideology, is an important focus of ideological work in colleges and universities.

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Problems And Reform Strategies in Music Appreciation Teaching in Higher Vocational Colleges

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Abstract: In the modern education work, music course in essence belongs to the quality education work, in the daily teaching is mainly to cultivate students' music quality and aesthetic taste; However, due to the influence of traditional educational concepts and modes, quite a few teachers lack sufficient understanding and attention to music teaching. Teaching content is mainly textbooks, and the teaching mode is outdated, which leads to dull classroom atmosphere and limits the improvement of teaching level. Under the influence of the new curriculum reform standards, relevant teachers need to transform and innovate the traditional educational concepts and models, strengthen the development of music appreciation teaching and enrich the teaching content, so as to optimize the classroom atmosphere, fully mobilize the enthusiasm and initiative of students in learning, so as to promote the healthy development of students' music literacy and classroom teaching.

Keywords: Higher vocational music; Appreciate teaching; Problems and strategies

1. COMMON PROBLEMS OF MUSIC APPRECIATION TEACHING IN HIGHER VOCATIONAL COLLEGES

1.1 Lack of attention to music appreciation teaching

Under normal circumstances, in the process of music appreciation teaching in higher vocational colleges, a considerable number of teachers are deeply influenced by traditional education concepts and models, and lack of emphasis on the teaching of this course. the daily teaching only explains the textbook content to students and plays the corresponding music, without cultivating students' professional skills or extending them. As a result, students' musical literacy cannot be effectively improved, and they cannot experience the beauty and charm of music, which limits and restricts the improvement of students' learning interest and enthusiasm, and also affects the improvement of the teaching level and quality of music appreciation in higher vocational colleges [1].

1.2 Lack of advanced and effective teaching methods

In any teaching process, scientific and effective teaching methods can greatly improve the teaching efficiency and quality, attract students' attention, and ensure the efficient and stable development of classroom teaching; However, due to the influence of traditional concepts, teachers and leaders in some higher vocational colleges do not pay enough attention to music appreciation teaching. the daily teaching still adopts the traditional and outdated way, the lack of effective communication between teachers and students, the classroom teaching atmosphere is dull, and students cannot conduct in-depth study and exploration, which affects the normal progress of classroom teaching.

1.3 Formalization exists in the teaching process

When the teaching of music appreciation in higher vocational colleges is carried out, as an artistic course, teachers should carry out music theory education to improve students' learning efficiency and convenience while cultivating students' music literacy. However, due to some teachers' neglect of this course, they play some music in daily teaching and let students listen to it and feel the lyrics and tunes of the music, so as to complete the music appreciation teaching. This mode leads to the formalization of classroom teaching. Although teaching objectives and task requirements can be fulfilled, it cannot improve students' music literacy and appreciation ability. It has bad influence on the development of further teaching in the later period.

1.4 Lack of scientific and comprehensive teaching evaluation

In addition, in the process of music appreciation teaching in higher vocational colleges, there will also be some problems such as incomplete teaching evaluation, which is mainly due to the lack of attention to the course by relevant teachers and college leaders, the lack of scientific and reasonable mode of daily teaching, and the lack of examination and detection of students' music literacy and professional ability after a period of learning or at the end of the semester, so it is impossible to understand the level of students' professional literacy. the lack of effective reference in the formulation of later teaching program limits the healthy development of music appreciation teaching in higher vocational colleges.

2. STRENGTHENING THE REFORM STRATEGY OF MUSIC APPRECIATION TEACHING IN HIGHER VOCATIONAL COLLEGES

2.1 Strengthen the change of teaching concept

In the current period, in order to strengthen the reform and innovation of music appreciation teaching in higher vocational colleges, relevant teachers need to strictly follow the requirements of the new curriculum reform standards and education department policies, actively change the traditional educational concepts and models, choose the appropriate teaching content, innovate

teaching objectives, while completing the teaching task, cultivate students' aesthetic ability, encourage students to appreciate music works, Understand the emotion and spirit contained in it, and strengthen and improve their own ideas and spiritual quality, so as to ensure their healthy and stable growth and development [2].

2.2 Strengthening the improvement of information-based teaching level

Under the influence of the continuous improvement of the level of modern science and technology, modern advanced technology and equipment such as computer, multimedia and network information are constantly applied in education work, which provides great convenience for teachers' teaching and effectively improves the development level of education work. When the teaching of music appreciation in higher vocational colleges is carried out, relevant teachers can collect similar types of music works with the help of Internet technology, according to the requirements of textbook content and teaching objectives, and also collect some music videos, which can be played for students through multimedia equipment. Teachers can explain in detail for students at the same time, so as to facilitate students' understanding and mastering. Enhance their appreciation ability, but also can resonate in the heart, give full play to the value of appreciation of teaching, improve students' own learning and classroom teaching work development level.

2.3 Strengthen the application of stratified teaching method

Stratified teaching method is one of the new teaching methods in modern education. In practical application, teachers need to fully understand students' professional quality, learning attitude, absorption and mastery ability, etc. On this basis, all students are divided into different levels, and then learning objectives and tasks are set respectively, so as to facilitate students according to their own knowledge level and professional ability. Obtain sufficient support, improve learning efficiency and professional quality level, so as to cultivate students' musical sense.

2.4 Strengthen the cultivation of teachers' professional quality

Generally speaking, as an important link in education, teachers' professional quality and technical ability have a great impact on the quality of classroom teaching. Therefore, in the teaching of music appreciation in higher vocational colleges, relevant teachers need to actively participate in all kinds of training and education activities, improve their own professional quality and ability of music, develop the concept of modern quality education, and be familiar with modern educational technology methods and equipment. In the later teaching, they can skillfully operate computers, multimedia and other equipment to carry out teaching. To provide students with a wealth of music works, expand the scope of students' vision and knowledge, to ensure the efficient and stable classroom teaching.

2.5 Strengthen the innovation of assessment methods

In addition to the above measures, in order to improve the teaching level of music appreciation in higher vocational colleges, relevant teachers also need to innovate the assessment methods, so as to understand the learning efficiency and professional quality of students. In the actual assessment, it is necessary to conduct a comprehensive investigation on students' theoretical knowledge and professional ability, and ensure the comprehensiveness of the evaluation results by combining students' academic performance, daily learning status and classroom performance. After that, the evaluation results will be timely fed back to students, so as to facilitate their adjustment of learning methods and provide sufficient promotion for further learning and development in the later period [3].

3. CONCLUSION

To sum up, music appreciation teaching, as one of the important courses in higher vocational education, mainly aims at cultivating students' music accomplishment and aesthetic taste, inheriting and developing music art, and cultivating more music professionals. Therefore, in daily teaching, relevant teachers need to comply with the requirements of the new curriculum reform standards, strengthen communication with students, understand their learning needs and difficult problems, so as to develop targeted and flexible teaching programs. They can also use modern technology and equipment, collect some classical music materials, and play them to students through multimedia and other devices. Through the appreciation of classical music works, students can feel the charm of music, improve their interest in learning and enthusiasm, so as to promote the level of classroom teaching and the healthy development of higher vocational music education.

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Research On Magnesium Fuel Battery Technology for Emergency Lighting

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Abstract: Magnesium fuel battery is a new type of clean, efficient and environmentally friendly battery developed in recent years. the battery has the advantages of good storage performance, environmental protection and no pollution, and high specific energy. In view of the challenges of magnesium batteries, such as large capacity loss, low negative electrode utilization rate and high voltage loss, this paper designs a magnesium fuel battery with light weight, high power and adding water to generate electricity, and prepares it as an emergency lighting device. When activating the device, only a small amount of water solution is added, and the sustainable lighting time after activation is more than 150 hours. the discharge performance of the device battery is tested in this paper. the battery discharge performance test results show that the open-circuit voltage of the battery is maintained at about 2.6V, and the battery attenuation performance is less than 4% after a week. the experiment shows that the device basically realizes the design requirements and has high practical value and broad application prospect.

Keywords: Magnesium fuel battery; Emergency lighting fixtures; Water power generation

1. THE TOPIC OF CONVERSATION

1.1 Research Background

With the rapid development of economy and science and technology, the non-reuse of traditional fossil energy and the environmental crisis caused by it have become a problem that cannot be ignored [1, 2]. New energy storage technologies are increasingly attracting people's attention. Among them, secondary battery is an important research direction of new energy storage materials, which is characterized by green and high efficiency. Currently, commercial secondary batteries mainly include lithium fuel cells, lead-acid batteries, nickel-cadmium batteries and nickel-metal hydride batteries, among which lithium fuel cells are the most widely used [3, 4].

Compared with lithium battery, magnesium battery has two advantages: first, magnesium battery can be stored in dry state for a long time, and the power will not decay. Second, magnesium battery has the advantages of small size and large capacity. Therefore, magnesium fuel cells have attracted much attention from researchers. However, there are many problems in current magnesium fuel cells. the main problem is that bivalent magnesium ions have strong polarization effect, which makes the reduction reaction of positive electrode materials slow, and passivation film is easily formed on the surface of magnesium negative electrode [5, 6], which will affect the deposition and dissolution of magnesium ions.

1.2 Introduction to Magnesium Fuel cells

Magnesium batteries usually consist of a positive electrode material, an electrolyte and a negative electrode material. the positive electrode material is usually composed of positive metal material or positive air electrode. the negative electrode material is usually magnesium metal or magnesium alloy, and the electrolyte is usually inorganic salt solution, alkali solution or constant temperature ionic liquid. Sometimes the performance of magnesium batteries can be improved by adding corrosion inhibitors to the electrolyte. Figure 1-1 shows the working principle of the magnesium fuel cell.

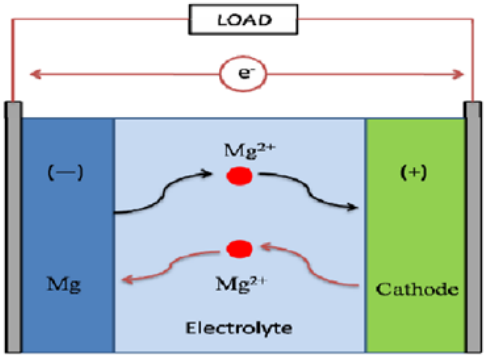

Figure 1-1 Schematic diagram of magnesium fuel cell charging and discharging

The discharge principle of magnesium fuel cells is shown in the figure above, which is shown as follows: With a layer of activated carbon material containing catalyst and hydrophobic additives or metal as a positive electrode, magnesium metal as a negative electrode, in the process of charging, magnesium ions can be removed from the positive metal compound movement to the electrolyte, and then through the electrolyte continue to migrate to the negative material, in the negative material to generate electrons magnesium metal elemental and deposited on the magnesium metal surface; In the process of battery discharge, the metal magnesium in the negative electrode will dissolve magnesium ions, which migrate through the electrolyte and slowly into the positive electrode material.

1.3 Research progress of magnesium fuel cells

Magnesium is abundant in the Earth's crust, and it is cheap. Compared with lithium, magnesium is relatively stable and less damaging to the environment, so it is suitable for use in fuel cells. the magnesium battery was

first assembled by Gregory et al. [7] in 1999. This battery has high coulomb efficiency and electrode conversion efficiency, but the open-circuit voltage of the battery is very low and the polarization is very severe. the anode material of the battery is Co3O4, and the anode material is magnesium. the preparation method of the electrolyte is tetrahydrofuran and dimethyl ether. Although the performance of the prepared magnesium ion fuel cells is not good, this study lays a foundation for the further development of magnesium fuel cells.

Yaofeng Liu [8] et al designed a magnesium air battery structure based on hydrophobic/oleophobic film and found that the open-circuit voltage of a magnesium air battery equipped with a hydrophobic film design is about 1.4V, which has a good and stable voltage. Han Bin [11] et al designed a single battery with open structure made of pure magnesium anode and air electrode, and found that the optimal distance between the anode and cathode plates of a magnesium air battery was 6mm, and the terminal voltage of a single battery was higher than 1.8V, but the product magnesium hydroxide precipitated at the bottom and could not be discharged. Dalianide Institute of Chinese Academy of Sciences [9] successfully developed a magnesium air emergency battery, which could satisfy the continuous use of 10W LED lights for 30 days and could charge nearly 200 smart mobile phones to bring light to the Lushan earthquake in Sichuan province. However, the battery needed 8 hours of illumination or 5 hours of charging to manually change the electrolyte.

At present, the use of existing magnesium batteries is relatively limited, there are the following problems: large volume, not conducive to carrying; Low utilization rate of negative electrode; High voltage loss.

To solve the above problems, this project aims to provide a small, lightweight, water-powered magnesium fuel cell cell cell cell and prepare it into an emergency lighting device.

2. EXPERIMENTAL RESEARCH ON MAGNESIUM FUEL CELL TECHNOLOGY FOR EMERGENCY LIGHTING

2.1 Discharge performance test of magnesium fuel battery

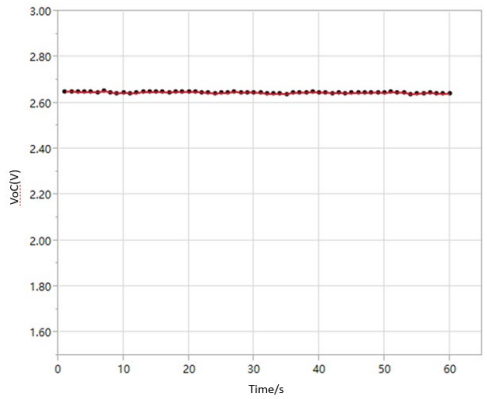

Figure 2-1 open circuit potential-time curve of emergency lighting device

An emergency lighting device was prepared by a magnesium fuel cell energy storage power cell with LED lamp beads, and its discharge performance was tested. Figure 2-1 shows the open circuit potential-time curve of the emergency device. It can be seen that the open-circuit potential of the emergency device can quickly reach a stable state, which is also beneficial to the discharge of the battery. the open circuit potential of the emergency device is 2.62V, which indicates that the electrochemical activity of the device is relatively good.

2.2 Attenuation performance test of magnesium fuel cell emergency lighting device

Test the discharge performance of the emergency lighting device, and add 1ml water at a fixed time every day to test the attenuation performance. After adding water, the working voltage fluctuates at 2.5V-2.4V, and water is added every other day. After adding water, the working voltage is increased, and the working voltage drops to 2.42V within 24h, and the attenuation percentage is not more than 4%. With the actual discharge test of LED lamp beads, LED lamp beads can continue to work for more than a week.

3. CONCLUSION

The magnesium fuel battery used in the emergency lighting device uses magnesium or magnesium alloy as the anode material, a self-made carbon layer as the cathode material, water absorption medium layer is a kind of water absorption and low electronic conductance material, the water electrolyte as the solvent, and through the battery laminated structure assembled. At the same time, the battery test experiment is designed to test the performance of the magnesium air battery. the conclusion is as follows: the discharge performance of the device battery is tested in this paper. the battery discharge performance test results show that the open-circuit voltage of the battery is maintained at about 2.6V, and the battery attenuation performance is less than 4% after a week. the experiment shows that the device basically realizes the design requirements.

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A Brief Analysis of the Integration of Film Art and New Media Art

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Abstract: Combined with the actual situation, under the background of the continuous development of modern information technology system, new media art has achieved significant development. Organic integration of new media art and film art can not only effectively meet the aesthetic needs of film audiences, but also narrow the relationship between film art and audience, so as to facilitate the audience to interact with film art. Deepen their feelings for the art of film. Based on this, this paper carries out an in-depth study on the integration of film art and new media art, hoping to play a certain role in the development of related work.
Keywords: Film art; New media art; Merge

1. INTRODUCTION

At present, the development of modern information technology has laid a solid foundation for the effective integration between new media art and other arts, among which the integration effect of film art and new media art is the most obvious. In view of the actual situation, the integration of film art and new media art has brought more diversified modern technical means for the development of Chinese film art, and improved the audio-visual enjoyment of film art in essence, so as to promote the efficiency of modern development of film industry. In addition, the integration of new media art can not only effectively innovate the expression form of film art, but also ensure that light, shadow and composition in film art can be changed with the development of the Times, and finally bring more diverse film art to the audience.

2. OPPORTUNITIES FOR THE INTEGRATION OF FILM ART AND NEW MEDIA ART

An in-depth analysis of the opportunities for the integration of film art and new media art shows that the opportunities are mainly reflected in the following aspects:

2.1 The expression of new media art is developing in a breakthrough state. Combined with the actual situation, new media art emerged in the 1980s, the emergence of new media art essentially enhanced the diversity of the means of film art. With the continuous development of modern technology system, network technology, three-dimensional animation and other technology systems have gradually become one of the main factors affecting the performance of film art, and these emerging technology systems have brought new ways of expression to new media art in the process of integration and development [1]. At the present stage, the emergence of digital technology enables people to obtain more diversified audio-visual and interactive experiences. In this context, film art gradually realizes the application value of modern information technology, and instill new impetus to the development of the film industry through scientific integration with new media and the connectivity and creativity features of new media. Finally, it lays a solid foundation for the innovation and development of film art.

2.2 People's ideas of technology and modern development of the Times. In the current society, with the development of the Times, people's ideas, ways of expression and so on have appeared more obvious changes. In the early stage of the reform and opening up, due to the limitations of technical factors, films and other forms of artistic expression could not reflect too much thought and emotion, which led to the obvious consistency in the way of expression and even the theme. With the continuous development of modern technology system, people are exposed to more and more diversified things in daily life, which makes people's demands for art forms such as films gradually show personalized characteristics, and their artistic aesthetic level has been significantly improved at this stage, which brings new challenges to the development of film art. It also brings new opportunities for the integration of film art and new media art, and provides a more solid foundation for social thought.

3. THE MEANS TO ACCELERATE THE INTEGRATION OF FILM ART AND NEW MEDIA ART

3.1 Strengthening the cultivation of talents' skills

In order to effectively realize the integration goal of film art and new media art, relevant departments need to pay more attention to the cultivation of professional talents, because talents, as the basis for the effective development of various works, determine the integration efficiency of film art and new media art. Combined with actual situation, in the current society, some colleges and universities in our country have set up course systems such as new media art on the basis of conforming to the development trend of the Times, so as to enhance students' mastery and application of new media technology by carrying out professional and systematic education activities aimed at students. And to ensure that students can construct more in line with the development of the art concept. From the perspective of students, participating in systematic professional education and training activities can not only fully improve their mastery of professional knowledge of film art and new media art, but also truly understand the application value of new media art in film art and other forms of artistic expression, and

organically integrate it with film art. Finally, while injecting new strength for the modernization development of film art, it brings more diversity of film art, and then achieves the ultimate goal of promoting the efficiency of our film art development.

3.2 Encourage innovation and give full play to collective creative wisdom

Combined with the actual situation, the emergence of new media has brought new opportunities to the development of film art, but in the process of the integration of new media art and film art, the development of film art is also faced with many new challenges. Especially in the process of film art creation, due to the diversified development of the expression forms of film art, film art is no longer limited to the inspiration of a certain person, but more represents the specific expression of the whole wisdom of a certain team. In general, the construction of roles, clip editing and even the embodiment of some novel ideas in film art all require the joint efforts of a large number of people [2]. Therefore, in order to effectively integrate film art and new media art, relevant personnel need to establish a good team spirit, and through the full play of collective creative wisdom, in the process of mutual communication and learning, to build a brand new film art expression form, on the basis of fully highlighting the integration value of film art and new media art, It will provide sufficient guarantee for our country's film art's modernization development.

3.3 Strengthen art exchanges at home and abroad

Compared with some countries in the world, Chinese film art started relatively late, which makes Chinese film art have obvious lag in genre development. In combination with the actual situation, the film art of some European and American countries has been emerging for a relatively long time, the overall development efficiency of the film industry is relatively rapid, and they have a relatively complete new media art system, so the integration efficiency of film art and new media art of some European and American countries is much higher than that of this aspect. In the process of modernization, we need to set up a good study idea, and use science for reference in view of the advantages of western film art. In this process, the domestic film industry needs to strengthen its communication efficiency with the international film industry, and through learning the advantages of international film art, effectively promote the development efficiency of Chinese film, and lay a solid foundation for the integration of film art and new media art.

4. CONCLUSION

To sum up, in the current society, with the continuous development of modern science, technology and the Times, new media has gradually entered the public's vision, and the integration of film art and new media art can bring more possibilities for the development of film art, so as to effectively improve the innovation efficiency of film art expression forms and other aspects. Comprehensively strengthening film art gives people audio-visual feelings. Finally, while effectively promoting the efficiency of modern development of film art, the integration with the help of new media art fully ensures that film art can fully meet people's artistic aesthetic needs and the needs of the development of the Times.

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Design And Implementation of a Racing Against Time Mini Game

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Abstract: In recent years, the COVID-19 epidemic has become the biggest enemy in our daily life, so it is our wish to completely eliminate the epidemic and return to our free daily life. In this context, we hope to express our respect for epidemic prevention and control workers and our desire to eliminate the epidemic by designing a game. Web games have the advantages of cross platform, installation free, and update free. Using HTML5 and JavaScript technology can quickly create a web mini game.

Keyword: COVID-19; Web Games; HTML5; JavaScript

1. INTRODUCTION

Our core appeal of the game is to completely eliminate the epidemic, return to free daily life, and pay tribute to epidemic prevention and control workers. In this context, we have designed different roles and scenario switching, each of which has made its own contribution to epidemic prevention and control. With the continuous development and improvement of web technology, using HTML5 and JavaScript technology can quickly create a web mini game. Web games have the advantages of cross platform, installation and update free, and can be operated using a web browser on a mobile phone, tablet, or computer.

Therefore, this project uses HTML5 and JavaScript as platforms, combined with the actual work of epidemic prevention and control and the strong desire to completely eliminate the epidemic, to design this racing against the clock mini game. the design logic of this game refers to the classic ancient Japanese game "Pushbox", with the aim of training people's logical thinking ability while playing the game.

2. DESIGN OF THE MAIN BODY OF THE GAME SYSTEM

2.1 Game Scene Design

We have set different game scenes based on different characters. Medical personnel, expert doctors, and community workers have all made tremendous contributions in epidemic prevention and control. So, we set up three game characters, including medical staff, expert doctors, and community workers, with different characters corresponding to three different game scenarios. the main job of medical staff is to kill disinfection and sterilization in the city, so the corresponding scene of medical staff is the city. There are a lot of viruses in the city. Medical staff need to go to the designated location to disinfection and sterilization viruses. the job responsibility of an expert doctor is to rescue patients, so the corresponding scenario for an expert doctor is a hospital, where the expert doctor needs to reach the patient's side as quickly as possible for rescue. the job responsibility of a community worker is to ensure the basic living of the community's personnel, so the corresponding scenario for a community worker is inside a building, and the community worker needs to go to the designated floor for material distribution.

2.2 Game System Technology Design

There are generally several methods to achieve game effects in web carriers: the first method is to create and load Flash into web pages, but now various browsers have gradually given up support for Flash; the second method uses web page tags, which draw graphics within the tags using JavaScript to draw the effects of each step of the game at a certain frame rate; the third method is to directly use web page tags and CSS style to create game interfaces, and control the effects of tags through JS to achieve game functionality. the third method is suitable for achieving simple game effects. If there are complex animation effects in the game, using the<canvas>tag implementation would be more suitable. Based on the analysis of different technologies, we ultimately adopted HTML5 with JavaScript technology and implemented it using canvas canvas technology in HTML5. And in order to adapt to most players, the background music is designed to be started by clicking on the page after entering the game, and then stopped by clicking again.

2.3 Game System Screen Design

In order to enhance the overall visual aesthetics of the game. We used Photoshop and Procreate drawing software for screen design. For three different characters, we used Procreate to draw different representative characters. the first character uses the image of a nurse, the second character uses the image of a surgeon, and the third character uses the image of a community work uniform. We selected different scene images and optimized them based on them.

3. DESIGN OF GAME SYSTEM FUNCTIONS

3.1 Design of Game Popup

In Scenario 1, the main play method of the game is to control the medical staff to reach the location of the virus and use disinfection and sterilization tools to eliminate the virus. the medical staff will have specific sound effects when walking. In addition, when the medical staff has no way in front of them, or there are obstacles blocking their movement, they will pop out of the pop-up window to tell the players that there are obstacles in front and they cannot move forward. After all viruses have been eliminated, the game can be

completed to win the game. A pop-up window will pop up to inform the player that they have passed this level. Click the confirm button to immediately jump to the next level, and a specific sound effect will sound when entering the next level. So, if the clearance is successful or fails, it is also necessary to design a game pop-up to inform the player. Scene 2, Scene 3, and Scene 1 have similar pop-up designs, which will not be expanded here.

3.2 Design of Character Movement Function

The control of the character is represented by the W and up arrow on the keyboard, representing up movement, A and left arrows representing left movement, S and down arrows representing down movement, and right and left arrows representing right movement. In the overall game, determining whether a character can move smoothly is the most important part. If it cannot move smoothly, the game cannot continue. During the determination process, the character's up, down, left, and right directions are determined separately, or if there are obstacles in front, the character naturally cannot move smoothly. In this process, the function is used to define the method, and then the car x is used Compare the y-coordinate value with the map array to determine whether the character can pass smoothly in the up, down, left, right directions.

3.3 Design for determining whether character tasks can be achieved

In Scenario 1, after the medical staff can walk around smoothly, whether they can disinfection and sterilization the virus in the next step is also the core of the game. First, define the method through the function function, and then determine whether the curlevel array and the curlap array meet the equal condition through the internal and external loops to determine whether the medical staff can successfully eliminate the virus and complete the task of passing the barrier. Scenario 2, Scenario 3, and Scenario 1 task determination designs are similar and will not be expanded here.

3.4 Design of Character Movement Statistics Function

The core of the game is to race against the clock, ranking the game based on the time it takes to complete the challenge. So it is necessary to calculate the number of movements of characters in each scene and the total time spent completing tasks. Different scenarios correspond to different game rankings.

4. CONCLUSION

Taking into account the current era, we have designed and produced this race against time mini game using HTML5 and JavaScript technology. At the same time, with this mini game, we express our respect to epidemic prevention and control workers and our desire to restore our daily lives. Finally, we also tested the stability, robustness, and maintainability of the system, and the system performance achieved the expected goals.

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A Discussion on Vocational English Teaching Strategies Based on Vocational Ability Training

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Abstract: With the development of education cause in our country, the professional attribute of higher vocational education becomes more and more prominent, and as an important content of education and teaching, higher vocational courses are required to increase reform and innovation, and carry out educational activities based on vocational ability. In the face of the existing problems in public English teaching in higher vocational colleges, this paper studies and adopts various effective measures to improve the pertinence of public English teaching. the following will mainly discuss how to carry out public English teaching activities in higher vocational colleges based on vocational ability training, so as to provide reference.
Keywords: Vocational ability training; Public English teaching in vocational colleges; Strategy discussion

1. INTRODUCTION

In the background of the new era, higher vocational education has been a great promotion in higher education system, and plays an important role in training applied talents and so on. With the advancement of economic globalization, public English teaching has attracted wide attention. As an important language tool, it has far-reaching significance for students' future career development.

2. THE IMPORTANCE OF VOCATIONAL ABILITY TRAINING IN PUBLIC ENGLISH TEACHING IN HIGHER VOCATIONAL COLLEGES

Vocational college teaching is aimed at cultivating application-oriented talents and improving students' vocational ability, which is mainly reflected in the following points: First, the ability training should be conducted according to the vocational characteristics of students. In the background of national economic development, major enterprises have put forward higher requirements on the comprehensive ability of talents, requiring them to master professional skills and have corresponding English vocational ability, which is of great significance to the development of students. Reform public English teaching based on vocational ability training to expand students' professional knowledge and meet their future employment development needs; Second, improve the timeliness of public English teaching, take students as the main body to impart knowledge, improve students' English professional ability and professional quality; Third, review the teaching objectives based on professional ability and improve the current situation of English teaching.

3. VOCATIONAL PUBLIC ENGLISH TEACHING STRATEGIES BASED ON VOCATIONAL ABILITY TRAINING

3.1 Establish the teaching objectives of professional courses

In order to highlight the practicability of public English teaching in higher vocational colleges, the reform of public English teaching is promoted by combining English teaching with professional teaching based on vocational ability training and students' future career development, based on the actual situation and based on the development needs of students of various majors. English teachers should actively change their teaching concepts, guide students to master English knowledge and professional skills in public English teaching, and make flexible use of them. In addition, it is necessary to reasonably set up public English courses, such as basic courses, professional courses, etc., increase the proportion of courses, determine the teaching objectives, do not pay too much attention to students' exam results, cultivate their professional ability according to their professional characteristics, and form a characteristic curriculum system. Taking the public English teaching of economic management and service majors as an example, the emphasis is placed on cultivating students' communication ability and management ability. Manufacturing majors focus on cultivating students' reading ability and translation ability, so that students can read foreign literature materials independently. Public English teaching should be combined with the characteristics of students of various majors, establish teaching objectives, and on this basis innovate teaching methods and content, enhance students' professional ability and quality, and lay a good foundation for their future employment development [1].

3.2 The choice of teaching content with specific emphasis

In the past, higher vocational colleges have not paid enough attention to the teaching of public English courses and failed to realize the importance of English to students' future career development. Under the background of the new era, with the acceleration of economic globalization, English vocational skills have become the necessary ability for students of all majors. In the process of English teaching in higher vocational colleges, emphasis should be placed on strengthening the connection between professional teaching and career

development, giving full attention to public English teaching, changing the previous teaching concepts, and clarifying the teaching focus based on students' future career needs. In course teaching, in addition to cultivating students' ability of listening, speaking, reading, writing and translating, it is also necessary to highlight professional characteristics, carry out reasonable curriculum Settings, implement differentiated course teaching, and select teaching content according to the career development path of students of different majors. For example, when choosing the public English teaching content of English major, grammar, oral English, translation should be the main; the public English teaching of tourism management is mainly based on information introduction, communication and expression. In a word, in the course teaching, students of different majors are trained with targeted abilities based on basic skills. Taking journalism majors as an example, students are cultivated in communication ability and writing ability, guided to accumulate vocabulary and learn English knowledge based on vocational content. In addition, it is necessary to build a public English teaching material system for professional students based on their career development needs, so as to strengthen students' English application ability from shallow to deep [2].

3.3 Use diversified curriculum teaching methods

Vocational college students' weak English foundation and lack of interest in English subjects, coupled with the traditional teaching mode still used in vocational colleges, will hinder the development of public English course teaching, resulting in students' English application ability is not obvious improvement, will affect the effectiveness of classroom teaching. Under the background of vocational ability training, teachers should actively change their own ideas, innovate teaching methods, and expand teaching content according to students' professional characteristics. In the listening module teaching, we play listening materials for students and guide them to retell and translate English materials independently. In this process, we correct students' pronunciation mistakes and pay attention to teaching methods to help students build up self-confidence. In the teaching of reading module, students are encouraged to understand the meaning of words in a specific context and apply what they have learned. For the important and difficult statements in the article, make excerpts and records, after understanding the usage of the statement skilled use. In practical teaching, language situations are created for students according to their major to train their application ability. In extracurricular module teaching, students' innovation ability and practical ability are mainly cultivated. Classic English films and television works are selected for students to play, so that students can find the fun of English learning, make up for their professional deficiencies and improve their comprehensive English ability. Finally, in the knowledge application module, it takes the role playing method and situational teaching method as a unit to carry out dialogue exercises and cultivate students' comprehensive ability [3].

3.4 Strengthening the construction of double-qualified teachers

The reform of public English teaching in higher vocational colleges based on vocational ability training and the construction of professional English teaching teachers will help promote its better development. In the construction of public English teachers, it is required that English teachers have solid theoretical knowledge and outstanding professional ability, so as to meet the learning needs of students in the course teaching, and create teaching classrooms that fit the future professional positions for students. Higher vocational colleges should attach importance to the introduction of talents, set up the threshold of teachers' admittance, investigate their double professional quality, and expand the team of teachers. In addition, it is necessary to strengthen the vocational training of teachers and provide them with the opportunity to go out for further study. Through strengthening the cooperation between schools and enterprises, we can understand the talent needs of enterprises and the future development trend of public English, so as to make the curriculum teaching more targeted and improve the effectiveness of the reform of public English curriculum.

4. CONCLUSION

As can be seen from the above, in the public English teaching in higher vocational colleges, the selection of appropriate teaching content and teaching methods oriented by career development should not only highlight the characteristics of English education, but also promote the curriculum reform and development. In this regard, higher vocational colleges should give full attention to it, deepen the reform of public English curriculum, stimulate students' interest in learning, so that students can flexibly apply their English knowledge to solve practical problems in the future development, so as to improve the employment rate of students.

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Research On the Employment Guidance Path of College Students Under the Background Of "Internet+"

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Abstract: With the advent of "Internet+" era, the Internet has penetrated into people's daily life, including the employment field. In this context, college students' employment guidance also needs to keep pace with the times and use the advantages of the Internet to improve the quality and effect of guidance. In the past, the information of college students' employment guidance mainly came from traditional channels such as schools and job fairs. With the development of the Internet, a large amount of recruitment information and career development information can be obtained online. Through the Internet, college students can more comprehensively understand the employment situation and trends of various industries and better plan their career development path.

Keywords: Internet+; College students; Career guidance

1. THEORETICAL BASIS OF COLLEGE STUDENTS' EMPLOYMENT GUIDANCE

College students' employment guidance is a complex work, which needs to draw on and apply a variety of relevant theories. the following are the theoretical bases of college students' career guidance:

1.1 Pedagogical theory. College student career guidance is a kind of educational activity, which needs to draw on the relevant theories of education, such as educational psychology, educational methodology, educational evaluation and so on. For example, the theories of educational psychology can help college students' career guidance personnel better understand students' psychological state and development characteristics, so as to make more targeted career guidance plans.

1.2 Career development theory. Career development theory is one of the important theoretical bases of college students' career guidance, including the theories of career planning, career decision-making and career adaptation. Through career development theory, college students' career guidance personnel can help students better understand their career interests and abilities and plan their career development path.

1.3 Sociological theory. College students' career guidance needs to take into account social and personal factors, and drawing on sociology-related theories can better understand the influence of social and personal factors on college students' employment. For example, social structure theory can help college students' employment guidance personnel better understand the structure and changing trend of the employment market, so as to provide better employment guidance for college students.

1.4 Information technology theory. In the era of "Internet+", information technology has penetrated into all aspects of college students' employment guidance. College student employment guidance personnel need to master theories related to information technology and understand the impact and application of information technology on college student employment guidance. For example, technologies such as big data analysis and artificial intelligence can help college student career guidance personnel better understand the job market and students' employment needs, and provide more accurate career guidance.

The theoretical basis of college students' employment guidance is multifaceted, and it is necessary to use a variety of related theories to provide better employment guidance services for college students.

2. EMPLOYMENT GUIDANCE THEORIES IN THE ERA OF "INTERNET+"

The employment guidance theory in the era of "Internet+" is closely related to the Internet technology and Internet application, mainly including the following aspects:

2.1 Data-driven employment guidance theory. In the era of "Internet+", a large amount of data can be obtained through the Internet, including information of the employment market, recruitment requirements of employers, employment demands of graduates, and so on. Through data analysis and mining, employment guidance personnel can understand the employment market and the situation of graduates more comprehensively and accurately, so as to make more accurate employment guidance plans.

2.2 Personalized employment guidance theory. Internet applications can provide college students with personalized employment guidance services. Through artificial intelligence and other technologies, employment guidance personnel can develop targeted employment guidance programs and provide personalized career development advice based on students' career interests, abilities and personalities.

2.3 Mobile employment guidance theory. With the popularity of smart phones and mobile Internet, career guidance in the era of "Internet+" also tends to be mobile. Career guidance personnel can use mobile applications and SMS to provide students with convenient and real-time career guidance services.

2.4 Practical career guidance theory. In the era of "Internet+", the employment market and career development are changing very fast, so the employment guidance for college students needs to pay more attention to practicality. Through practical teaching and practical training, career guidance personnel can help students better understand the employment market and career development trends, and improve their vocational skills and employment competitiveness.

The employment guidance theory in the era of "Internet+" needs to make full use of the advantages of the Internet and focus on data analysis, personalized service, mobile service and practical teaching to provide students with more comprehensive, convenient and practical employment guidance services.

3. ANALYSIS OF THE CURRENT SITUATION OF COLLEGE STUDENTS' EMPLOYMENT GUIDANCE

College students' employment guidance is an important part of college graduates' employment work, and its purpose is to help graduates achieve career planning and employment goals. However, the current situation of college students' employment guidance exists in the following aspects:

3.1 Insufficient marketization. At present, college students' career guidance is mainly responsible by the career guidance center and relevant departments of the school, lacking more market mechanisms and professional organizations to participate, which cannot fully meet the diversified needs of students.

3.2 The service system is not perfect. the service system of college students' employment guidance is relatively weak, and the service content, form and way are single, lacking personalized and differentiated services.

3.3 Insufficient skill training. the professional ability and practical experience of college student employment guidance personnel in career planning, career counseling and employment guidance need to be improved, and professional training and practice opportunities need to be strengthened.

3.4 The employment situation is not optimistic. At present, the employment pressure is high, the employment situation is severe, and it is more difficult for college students to be employed. Despite the employment guidance services provided by the university, the employment rate is not satisfactory.

3.5 Mismatch between demand and service. Due to the different factors of students' own quality, professional background and employment needs, more personalized and differentiated services are needed in college students' career guidance services, otherwise it will be difficult to meet students' needs.

In general, there are many problems in college students' career guidance, and it is necessary for the government, schools, enterprises and other parties to work together to strengthen the market, improve the service system, enhance the professional ability of career guidance personnel, improve the employment rate, and better provide comprehensive and personalized career guidance services for college students.

4. THE CONSTRUCTION OF THE EMPLOYMENT GUIDANCE PATH IN THE ERA OF "INTERNET+"

The construction of the employment guidance path in the era of "Internet+" should start from the following aspects:

4.1 Establish an omnichannel employment information platform. By establishing an omni-channel employment information platform and integrating various employment information resources, including recruitment information, enterprise information, industry trends, etc., we can provide students with comprehensive, timely and accurate employment information services.

4.2 Promote personalized employment guidance services. Through data analysis, artificial intelligence and other technical means, provide personalized career planning and employment guidance services according to students' individual needs and characteristics to help students better formulate career planning and employment plans.

4.3 Reinforce employment skills training. Through vocational skills training, practical teaching and entrepreneurship guidance, we improve students' employability and competitiveness and help them better adapt to the changes and demands of the job market.

4.4 Strengthen the construction of faculty members. Through training and selection of excellent employment guidance personnel, improve their professionalism and professional ability to provide students with more professional and practical employment guidance services.

4.5 Establish good cooperative relationship with enterprises and society. By establishing a good cooperative relationship with enterprises and society, we can understand the information about the employment needs of enterprises and industry trends, and provide students with more comprehensive and practical career guidance services.

In a word, to build a career guidance path in the era of "Internet+", we need to focus on innovation, fully apply Internet technology and resources, promote personalized services, strengthen skills training and teacher team building, and establish close ties with enterprises and society to provide students with more comprehensive, personalized and practical career guidance services.

The career guidance path in the era of "Internet+" needs to strengthen digitalization and information construction, and improve service efficiency and service quality by establishing an intelligent career guidance platform and service system. It is necessary to provide personalized services by precisely matching students' individual needs and service plans. Focus on cooperation with Internet companies and business incubation institutions, etc. Through cooperation with these institutions, we can provide more comprehensive employment information and entrepreneurial services and improve the service level. There is a need to strengthen the ability to innovate and introduce new

service methods and technical means to improve the level of service.

The career guidance path in the era of "Internet+" needs to strengthen digitalization and information construction, focus on personalized services and innovative service methods and technical means, cooperate with Internet enterprises and business incubators, focus on data analysis and mining, and improve service quality and effectiveness. These findings provide a reference basis for the optimization and improvement of the employment guidance path in the era of "Internet+".

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Research On Innovative Path of Carrying Forward Chinese Excellent Traditional Culture in Party Building Work of Higher Vocational College Students

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Abstract: With the continuous development of social economy, vocational college student Party building has become an important work. In the party building work of college students, carrying forward the excellent traditional Chinese culture is not only an important way to inherit and carry forward the Chinese national culture, but also an important way to train new people to assume the great responsibility of national rejuvenation. This paper mainly discusses the innovative path of carrying forward the excellent traditional Chinese culture in the Party building work of students in higher vocational colleges.

Keywords: Higher vocational colleges; Party building; Excellent traditional Chinese culture; Innovation

1. INTRODUCTION

To carry forward the excellent traditional Chinese culture is an important task in the party building work of students in higher vocational colleges. the innovation path should not only pay attention to theoretical innovation and practical innovation, but also popularize practical experience. Only by maintaining the continuous innovation and development of traditional culture can we promote the development and expansion of the party building work of university students more comprehensively.

2. CONNOTATION OF FINE TRADITIONAL CHINESE CULTURE

The fine traditional Chinese culture attaches great importance to morality and ethics, advocating such ethical and moral concepts as "benevolence" and "honesty and trustworthiness", while also emphasizing traditional virtues such as respecting teachers, loyalty, filial piety and respecting the elderly. Second, literature and art. Excellent traditional Chinese culture includes art forms such as the history of Chinese literature, calligraphy, music, painting, paper-cutting, embroidery, etc. These art forms have profound historical inheritance and connotation, such as Tang and Song poems, the four great classical novels of ancient China, etc. Third, history and humanity. the excellent traditional Chinese culture attaches great importance to history and culture, including Confucius Thought, various cultural schools of the Spring and Autumn Period and the Warring States period, as well as cultural celebrities, historical events, historical relics and so on. the fourth is philosophical thought. the excellent traditional Chinese culture emphasizes ideological wisdom and philosophical thinking, such as Lao Zi's "Tao Te Ching", Mencius's "Dialogue between Mencius and Mo-tzu", Zhuangzi's "Inner Chapters of Zhuangzi", and the Doctrine of the Mean. Fifth, traditional medicine. Excellent traditional Chinese culture also includes traditional Chinese medicine culture and other traditional medicine knowledge.

After a long period of development and integration, the fine traditional Chinese culture has formed rich content. First of all, the excellent traditional Chinese culture takes the long history of the Chinese nation as the background, inheriting the essence of the excellent traditional Chinese culture, including the idea of the people, the unity of nature and man, the balance of Yin and Yang and the unity of the world [1]. Secondly, the fine traditional Chinese culture is based on a 5, 000-year history, inheriting the precious spiritual wealth and rich ideological resources of the Chinese nation. Such as "self-improvement, moral commitment", "the rise and fall of the world, every man is responsible" and so on. Finally, in the course of historical development, the fine traditional Chinese culture has accumulated and formed the national spirit and the spirit of the Times with distinct characteristics. All these provide important ideological source and rich nutrition for the construction of socialist core values. In short, the excellent traditional Chinese culture runs through the thousands of years of Chinese history and culture, with very rich connotation and historical value. These fine traditional cultures are not only the precious wealth of the Chinese people, but also an important part of world culture.

3. THE IMPORTANCE OF CARRYING FORWARD THE EXCELLENT TRADITIONAL CHINESE CULTURE IN STUDENTS' PARTY BUILDING WORK

To carry forward the excellent traditional Chinese culture in the Party building work of students in higher vocational colleges is beneficial to students to establish correct ideals and beliefs. Secondly, it is helpful to improve students' moral quality. the fine traditional Chinese culture is extensive, profound and rich in connotation. It is a valuable spiritual wealth and moral resources, which can help students improve their moral quality. Through learning excellent traditional Chinese

culture in study and life, students can absorb its moral essence and internalize it into their own moral concepts and codes of conduct. Thirdly, it is helpful to improve the comprehensive quality of students. Finally, it is conducive to promoting campus harmony and stability. Carrying forward the excellent traditional Chinese culture in the Party building of students in higher vocational colleges can create a good campus environment, build a harmonious campus atmosphere and establish a harmonious interpersonal relationship, which is conducive to the stability and development of the campus.

4. PROBLEMS EXISTING IN THE PARTY BUILDING WORK OF STUDENTS IN HIGHER VOCATIONAL COLLEGES

First, it fails to make full use of new media technology to spread excellent traditional Chinese culture. Due to the lack of attention to new media technology, many higher vocational colleges are unable to combine the Internet with students' party building work. For example, when propagating the Party's principles and policies, they often just carry out text propaganda rather than adopt a diversified way of communication. In the process of training students as active members of the Party, they often only impart knowledge in writing rather than take a lively form of education. In the construction of campus culture, we often attach importance to the construction of material culture but ignore the construction of spiritual culture. Second, the traditional cultural education resources are single. At present, many higher vocational colleges mainly adopt the way of theoretical education when carrying out ideological and political education to students, but do not make full use of modern network technology to develop the excellent traditional Chinese cultural education resources. Third, the inheritance of fine traditional culture contains a single content. At present, many higher vocational colleges are carrying out the curriculum construction of Chinese excellent traditional culture education. However, due to the complicated content and heavy workload of students' party construction, higher vocational colleges lack a certain scientific planning and target orientation in the curriculum construction of Chinese excellent traditional culture education. This makes it difficult to carry out the party building work of students in higher vocational colleges and achieve ideal results.

5. INNOVATIVE COUNTERMEASURES FOR CARRYING FORWARD EXCELLENT TRADITIONAL CHINESE CULTURE IN THE PARTY BUILDING WORK OF STUDENTS IN HIGHER VOCATIONAL COLLEGES

First of all, the construction of campus culture environment should be innovated. In the construction of campus culture, higher vocational colleges should make full use of the advantages of the campus environment, through the careful design and transformation of the landscape, buildings, sculptures, plaques, etc. in the campus environment, fully excavate the historical and cultural deposits in the campus, build a characteristic campus cultural environment, so as to achieve the purpose of letting students accept the excellent traditional culture edifyingimperceptitiously.

Secondly, we should innovate the activity carrier. Through the new media platform, the education activities of Chinese excellent traditional culture will be spread to the students, so that the students can understand the rich connotation of Chinese excellent traditional culture through the new media platform, so that they can be influenced while learning traditional cultural knowledge.

Finally, we should innovate the education model. When carrying out traditional culture education, higher vocational colleges should strengthen cooperation with teachers of ideological and political theory courses, counselors, class teachers, etc., to carry out all-round education for students [2]. At the same time, the school should make full use of the existing resources, such as library, reading room, etc., and make full use of these resources to carry out various forms of activities. And through a variety of channels and ways to innovate education mode and content, effectively improve the effect of education.

To sum up, promoting the fine traditional Chinese culture is a great cause full of challenges and opportunities. I believe that under the guidance of the Party building work of students in higher vocational colleges and with the joint efforts of all, we will be able to achieve the desired results and promote the excellent traditional Chinese culture to glow with new vitality and vitality in the new era!

6. CONCLUSION

In short, to carry forward the excellent traditional Chinese culture is one of the important tasks in the current work of the Party, but also one of the important contents in the party building work of students in higher vocational colleges. First of all, through learning and understanding the excellent traditional Chinese culture, vocational college students should be guided and inspired patriotic feelings, strengthen national identity and self-confidence, inherit and carry forward the excellent traditional Chinese culture. Secondly, it is necessary to make full use of various resources and means in the party building work of students in higher vocational colleges. Through literary and artistic competitions, lectures, practical activities and other forms, students can have a deeper understanding of the connotation and essence of excellent traditional Chinese culture, and improve their comprehensive quality. Finally, we must promote the innovation and development of Chinese fine traditional culture, constantly open up the road of innovation, promote the integration of traditional culture and modern society, and promote the diversified development and prosperity of culture.

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Visual And Tactile Aesthetic Construction in Graphic Design

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Abstract: In view of the actual situation, graphic design itself belongs to one of the core components of the modern art design system. In the current society, the development of graphic design work can effectively convey the target information at the same time, bring people a richer visual experience. the visual and tactile aesthetic construction in graphic design will have a direct impact on the social recognition and recognition of graphic design works. Based on this, this paper carries out an in-depth analysis of the aesthetic construction of vision and touch in graphic design, hoping to play a certain role in the development of related work.

Keywords: Graphic design; Vision; the sense of touch; Aesthetic construction

1. INTRODUCTION

In-depth exploration of graphic design can be learned that the visual impact of graphic design itself has a relatively special value, which can effectively stimulate people's sensory needs at the same time, narrow the relationship between the work and people, and encourage people to enjoy the process of emotional communication with graphic design works. In order to essentially improve the audience of graphic design, relevant scholars have gradually carried out research on the visual and tactile aspects of graphic design, which makes it necessary for designers to make reasonable use of text, composition and other basic expressive elements in the process of graphic design, while strengthening the expressive effect of graphic design with the comprehensive application of a variety of materials and processes. Finally, ensure that graphic design works can fully meet people's aesthetic needs.

2. THE PRINCIPLE OF VISUAL AND TACTILE COMPOSITION

An in-depth analysis of the composition principles of vision and touch shows that the composition principles can be divided into the following contents: 1. Order. From the perspective of graphic design, order belongs to a basic beauty in graphic design, and it also belongs to a kind of basic principle to be observed in all kinds of creative activities. If there is no order in graphic design, then the work will show obvious chaotic characteristics, which will not only have a very direct impact on the actual performance of the work, but also lead to negative emotions such as exclusion, boredom, etc., easily generated by the public in the process of viewing graphic design works. To this end, designers need to fully implement the principle of order into graphic design, and bring more excellent works of order to the public through the comprehensive application of various elements. In general, the implementation of the principle of order in graphic design can effectively express the aesthetic feeling of the work, and bring diversified aesthetic experience to people; 2. Contrast. In graphic design, how to effectively strengthen the visual contrast of the work and improve the tactile experience of the work is one of the main factors affecting the effect of graphic design. Therefore, when carrying out graphic design work, designers need to correctly understand how to design to catch the eye of the public to carry out in-depth analysis, and improve the first impression of the work to the public; Secondly, designers need to do a good job of tactile contrast strengthening in terms of tactile experience, so as to enhance the beauty of the work; In addition, in graphic design, designers need to carry out an in-depth analysis of the mainstream aesthetic needs shown by social development, and combine the differences in aesthetic habits of people at different levels, add richness to the design content, and define the design theme, so as to effectively strengthen the visual impact of graphic design works on the basis of, To ensure that the public is truly attracted to the work and actively explores the deep value of the work [1].

3. THE AESTHETIC CONSTRUCTION OF VISION AND TOUCH IN GRAPHIC DESIGN

3.1 Construct a reasonable structure and emphasize the overall functionality

Combined with the actual situation, graphics, text and so on are important design elements required in graphic design, its size, shape, color and so on will cause a very direct impact on the effect of graphic design, in graphic design, graphic design works are made up of points, lines and surface and other elements, its in graphic design are required for the overall service of the work. When carrying out graphic design work, designers need to conduct a comprehensive analysis of the functions of the overall layout of the work, because the different functions of each element of the overall layout will directly limit the overall performance of the work, but it can also guide the direction of the design of the work. In graphic design, design elements usually exist in a state of attachment or conjunctions, and designers can form unique style characteristics by creating for design elements. Secondly, the different expressive functions of various elements strengthen the sense of hierarchy of graphic design works, and the design theme determines the hierarchical logic between various elements. At this time, designers need to use a variety of design methods to make clear the hierarchical relationship. There are

obvious differences between different levels in visual form, tactile form and other aspects. Therefore, designers need to constantly improve the rigor of expression techniques in graphic design when carrying out graphic design work. In this process, designers also need to reasonably apply the visual and intuitive design elements, and thus fully highlight the design theme. And then fully meet people's aesthetic needs.

3.2 Rational color setting to create reasonable visual effects

In graphic design, the effective application of color elements can essentially strengthen the visual effects of graphic design works, and then fully meet people's aesthetic needs in visual aspects. In the use of color elements, designers need to focus on the color selection and control of color elements, and on the basis of the design theme for color selection range is clear. Secondly, if designers want to ensure that the colors they choose can serve the theme of their works, they need to constantly improve their knowledge of color theory, and correctly realize that different colors show very different effects. In graphic design, no matter what changes occur to the design object, the application method of color elements remains unchanged. Thirdly, in color selection, designers need to carry out in-depth analysis of graphic design themes, such as cultural characteristics, and divide color levels according to design themes [2]. In this process, designers also need to strictly implement the following points of work: 1. the use of color elements should be consistent with the theme of the work. the selection of color elements based on the design theme can essentially strengthen the visual effect of the work and give the work a better recognition. In order to effectively achieve the goal of graphic design, designers need to carry out in-depth thinking from a rational perspective, so as to further ensure the consistency of color elements and design themes, and promote graphic design works can bring people more diversified aesthetic experience; 2. Enhance the unity between color element selection and basic graphics. In order to further enhance the unity between color and graphics, designers need to take basic graphics as the core, carry out in-depth analysis of color selection, and develop a variety of color matching schemes, so as to fully highlight the effect of color use through bold attempts, and essentially improve the rationality and logic of color use, and finally make graphic design works more coordinated. It has good visual effects.

4. CONCLUSION

To sum up, in the current society, there is a very close connection between graphic design and People's Daily life. the development of graphic design not only represents the improvement of the aesthetic level of the public, but also belongs to one of the important components of the contemporary practical art system. Therefore, in order to essentially improve the quality of graphic design works, designers need to carry out in-depth analysis of graphic design expression techniques, and integrate visual and tactile design elements, so as to ensure that visual and tactile appeal of graphic design works can be significantly improved.

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Research On Application of Computer Application Technology in the Era of Internet+

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Abstract: Along with the rapid development of information technology in our country, all walks of life are gradually to information, digital, network transformation, under the Internet+era background also brings the new development opportunity to computer application technology. But in the process of the development of computer application technology, there are still many problems, such as the lack of professional computer personnel, computer security is low, these will bring influence to the development of computer. In this paper, the author analyzes the problems existing in the development of computer application technology, and expounds the application measures of computer application technology under the "Internet +" wetland.
Keywords: "Internet Plus"; Computer; Technology; Application; Research

1. THE PROBLEMS EXISTING IN THE DEVELOPMENT OF COMPUTER APPLICATION TECHNOLOGY

1.1 Lack of computer talents

Although there are many computer enthusiasts in our country, they are not only interested in exploring the computer, but also have certain computer professional skills, but these computer talents are only the tip of the iceberg for the whole computer field, for the development of our computer application technology, far from enough. At present, Chinese universities are also gradually strengthening the establishment of computer application technology courses, but in fact, the development and application effect of computer application technology is not very ideal. At the same time, some universities are limited in the recognition of computer application technology, unable to cultivate more professional computer talents.

1.2 The security of computer application technology is poor

Because of the extensive use of computer application technology, lead to some computer technology lawbreakers, look on the network, get money through computer technology means, such as in recent years, various areas of our country frequently appear personal information disclosure, network fraud and other situations, in addition colleges and enterprises are also frequent outside hackers attack, They steal the information data of universities and enterprises through computer technology, and exchange the information data for certain rewards. From these contents, we can see that computer security is very important.

2. APPLICATION MEASURES OF COMPUTER APPLICATION TECHNOLOGY IN THE ERA OF "INTERNET +"

2.1 Computer and Agriculture

With our country fully entering the "Internet +" era, various industries also gradually turn to networking transformation, through the combination of Internet and agriculture, can not only construct a new mode of agricultural production and management, but also improve the production, management, sales efficiency of agriculture, and realize the information and intelligent control of agricultural planting. For example, in the process of agricultural planting, computer technology and big data technology are used to conduct a comprehensive analysis of agricultural planting in the region, such as climate conditions, soil quality, weather conditions, fertilizer use, etc., through the analysis and research of these contents, to build a good growing environment for crops. In addition, in the process of crop planting, the installation of real-time monitoring, so that not only can help crop farmers understand the situation in real time, such as crop pests and diseases, weather changes, but also the use of computer application technology scientific analysis of pesticide reagents, scientific configuration. Secondly, agricultural products are sold through the Internet, which can help farmers bring more income and speed up the market circulation of crops. For example, "Internet +" technology is adopted to build a rice planting platform and use network technology to monitor rice planting areas. In this way, not only can the growth of rice be effectively analyzed, but also the quantity and area of rice planting can be adjusted according to market changes. With the help of computer application technology, Realize the modernization of agricultural planting, intelligent management, and reduce the labor intensity of farmers. Finally, online platforms such as Tmall, Jingdong and Douyin can be used to sell and publicize agricultural products, which can not only improve the economic benefits of farmers, but also enhance the market visibility of agricultural products.

2.2 Internet and industry

The comprehensive popularization of computer application technology has also led to changes in the production, operation and management of the industrial field. the use of computer technology makes the industry gradually turn to intelligence, automation and information technology. For example, the use of GPS can help enterprises fully understand the natural information of various regions, and then explore geology, hydrology and soil through relevant

instruments and equipment, and organize and collect the data information, and develop according to the data information content, which can not only improve the work efficiency, but also ensure the scientific and rational work. Cloud computing is mainly applied to the Internet platform. Internet enterprises develop and organize information and data through computer algorithms, and build many virtualization products, which also brings more profit models to Internet enterprises. For example, some enterprises analyze and manage their own products by means of big data technology, and conduct research according to the market conditions to understand the behaviors and demands of different users, and build better products according to the data information, so as to avoid low sales efficiency and unsalable products. For example, with the popularity of short video platforms such as Douyin and Kuaishou at the present stage, big data technology is used to understand the video needs of each user, and then big data means are used to recommend relevant products to these users, bringing more sales space for enterprises. Finally, the connection between smart home and mobile APP can not only help people to remotely control household appliances, such as intelligent sweeper, intelligent rice cooker, intelligent air conditioning and other household use, so that People's Daily life gradually to more convenient, more comfortable, more convenient direction.

2.3 Internet and Education

The combination of "Internet Plus" and education not only promotes the rapid development of education, but also brings more help to teachers. For example, teachers collect more education and teaching resources through the Internet, and then deliver them to students through video, pictures, audio and other means, which not only brings more intuitive and vivid teaching experience to students. At the same time, it can greatly improve the quality of education and teaching. In addition, the online teaching platform developed by some Internet companies through computer technology enables students to learn online, watch in real time, and watch at any time, breaking the limitation of classroom teaching space and time in the past. Moreover, online teaching can help teachers and students cope with some emergencies. For example, many schools have carried out online teaching during the COVID-19 pandemic. Through relevant software and platforms to lead students to complete teaching tasks, so that students can avoid viruses, but also help students to complete educational tasks, such as the use of Tencent conference, Dingding and other software, which has the function of live teaching, questions, communication and so on. Secondly, online education is not only limited to schools and students, but also creates a good learning plan for some public examination, postgraduate examination and national examination personnel. They only need to watch videos, online questions and answers, and scan questions on mobile phones to continuously improve their ability and foundation. In addition, it also provides employment opportunities and space for some outstanding talents.

4. CONCLUSION

To sum up, under the background of "Internet +" era, the use of computer application technology has not only brought new development and changes to all walks of life, but also created infinite possibilities. I believe that more new technologies, new software and new functions will appear in everyone's life, study and work in the future. This paper expounds the problems such as the lack of computer talents and the poor security of computer application technology in the development of computer application technology, and discusses the application measures of computer application technology such as computer and agriculture, Internet and industry, Internet and education.

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Asset Management Reform Of Higher Vocational Colleges Under Big Data Thinking

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Abstract: Higher vocational colleges, as one of the important parts of a complete education system, shoulder heavy responsibilities for the delivery of professional, technical and quality talents for our country, so it is of great significance and value to ensure the health and stability of their operating development. Based on the importance of the asset management of higher vocational colleges to the reform and development of higher vocational colleges, schools need to continuously improve the science, effectiveness and adaptability of the asset management, to ensure that the assets of higher vocational colleges can be in a relatively safe situation. This paper makes a detailed analysis and exploration on how to implement the asset management reform in higher vocational colleges under the thinking of big data, in order to share and communicate with people in related industries.

Keywords: Big data thinking; Higher vocational colleges; Asset management; Reform countermeasure

1. INTRODUCTION

Under the background of informationization, digitalization and intellectualization, social production and life have undergone earth-shaking changes, especially in the aspects of production mode and efficiency, forming a new form with information as the core. In order to adapt to the development trend of modern society, the asset management in higher vocational colleges has gradually accelerated the reform process of information management mode, and has achieved remarkable results, especially in the aspect of asset management efficiency. Combined with the information construction of assets management in higher vocational colleges, it is necessary to draw on the advantages and values of big data thinking for further realization, and create favorable conditions for asset management in higher vocational colleges through improving asset information management mechanism, implementing unified planning of asset management and constructing asset information structure system.

2. INFLUENCE OF BIG DATA THINKING ON ASSET MANAGEMENT IN HIGHER VOCATIONAL COLLEGES

In recent years, our higher vocational colleges ushered in huge development opportunities, in the face of the continuous surge of higher vocational students, the scale of higher vocational colleges presents a rapidly expanding situation, under this background, the assets of higher vocational colleges will also be significantly increased, which brings severe challenges to the assets management of colleges, but also creates favorable conditions for the construction of higher vocational colleges. For example, in the context of the increase in assets of higher vocational colleges, massive asset management data and information will be generated. If the data and information cannot be scientifically, accurately and comprehensively analyzed, processed and applied, the management and control of the assets of higher vocational colleges will be lost, and the security of the assets of higher vocational colleges will be damaged [1]. In addition, the assets of higher vocational colleges will also be affected by the external environment, including the market economic environment. If the assets management of higher vocational colleges cannot obtain valuable information in the market in the first time and make asset management decisions based on the information, it may bring huge losses to the assets of colleges. It can be seen that the acquisition, collection, collation, analysis and application of information is the key to the asset management of higher vocational colleges. Therefore, the asset management of higher vocational colleges under the thinking of big data should actively build the information service management mode to ensure the more efficient and high-quality transfer and acquisition of asset information, so as to provide strong support for the asset management of higher vocational colleges.

3. THE STATUS QUO OF HIGHER VOCATIONAL ASSET MANAGEMENT

3.1 The degree of information technology construction is not high

The asset management of higher vocational colleges is facing new challenges under the thinking of big data. In order to adapt to informatization, digitization and intelligence as soon as possible, it is necessary to accelerate the process of information construction, so as to carry out asset management with the help of big data. However, in view of the current asset management situation of higher vocational colleges, the informatization construction is not high or even stagnant, which will affect the substantive effect of asset management to a certain extent. For example, higher vocational colleges invest more and more money in information construction, but the results are very limited, and there are many places that are not taken into account, especially some supporting facilities, personnel, management methods, and so on, ultimately resulting in higher vocational colleges asset management information construction degree is not high.

3.2 Low utilization rate of asset information

The increase, decrease and reorganization of assets will generate a large amount of asset information, which will

provide data and information support for subsequent asset management, so as to ensure the scientific and correct decision of various asset management [2]. In terms of the current situation of asset management in higher vocational colleges, there is obviously the problem of low utilization rate of asset information. the main reason for this problem lies in the limited access to asset information, the difficulty for management units to grasp the real information of the assets of higher vocational colleges in the first time, and the inability to grasp the changes of the market, which leads to the asymmetry between the asset information of higher vocational colleges and the market. Finally, the asset information can not be effectively applied.

3.3 Lack of intelligent asset information management platform

The primary task of asset management in higher vocational colleges under the thinking of big data is to establish an intelligent asset information management platform to ensure that all information about assets can be scientifically analyzed, screened and applied, so as to improve the efficiency of asset information processing in colleges and universities. At present, most of the higher vocational colleges have not established the intelligent asset management platform, and some of the higher vocational colleges are still using the traditional asset management mode, such as sampling survey, manual asset data analysis, which will reduce the quality and efficiency of asset information processing.

4. REFORM MEASURES OF ASSET MANAGEMENT IN HIGHER VOCATIONAL COLLEGES UNDER THE THINKING OF BIG DATA

Vocational colleges should be able to adapt to the trend of social development during the process of operation development, so as to contribute to the training of personnel in our educational cause. Based on the social development situation under the thinking of big data, the asset management of higher vocational colleges needs to implement comprehensive information reform measures, and build the information, intelligent and digital asset management mode in line with the characteristics of the Times, so as to achieve the purpose of improving the comprehensive quality and efficiency of the asset management of higher vocational colleges.

4.1 Forming an information-based asset information structure system

Faced with more and more complex asset information in higher vocational colleges, it is difficult to guarantee the comprehensiveness, reliability, timeliness and effectiveness of asset information only by means of manual acquisition, processing, analysis and application. Therefore, higher vocational colleges should attach importance to the formation of informationized asset information structure system, mainly through information technology and big data resources. Collect, sort out and analyze all assets related information to provide data and information support for asset management. For example, with the support of information technology, information sharing can be realized among various departments. In this case, asset management can adjust and improve various asset management decisions by relying on real-time and comprehensive asset information.

4.2 Improve the asset information management mechanism

The asset management of higher vocational colleges needs to be based on perfect asset information, so accurate, reliable and real asset information is very important. Based on this, under the thinking of big data, in addition to the establishment of an information management platform, higher vocational colleges should also develop a sound asset information management mechanism to guard against fraud and misuse of asset information, so as to avoid serious losses to the assets of higher vocational colleges. For example, the asset information review mechanism of higher vocational colleges should be developed to track every asset information and judge whether the source of asset information is true and reliable with the help of information technology, so as to improve the utilization efficiency of asset information.

4.3 Make unified plans for asset management

The intelligent asset management information platform can analyze the existing problems of asset management in higher vocational colleges by relying on big data, and can also apply intelligent analysis to verify the scientificity and feasibility of asset management decisions, which can significantly improve the comprehensive quality and effectiveness of asset management in higher vocational colleges to a certain extent. Therefore, higher vocational colleges should carry out unified planning for asset management. And the construction of intelligent asset management information platform.

5. CONCLUSION

To sum up, the asset management of higher vocational colleges is faced with severe challenges under the thinking of big data. If information and intelligent management cannot be realized, it is difficult to guarantee the effectiveness and scientific nature of asset management of higher vocational colleges. In view of this, the above analysis focuses on how to construct the asset management mode of informationized higher vocational colleges and puts forward relevant reform strategies, hoping to be helpful to the development of higher vocational colleges.

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Research On Curriculum and Teaching Reform of Automotive Manufacturing and Test Technology Specialty Under Commercial Vehicle Standard

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Abstract: With the development of our education, the standards of commercial vehicles have been integrated into professional courses of automobile manufacturing and testing technology. In order to meet the development requirements of modern society and improve the quality of talents' education, higher vocational colleges begin to pay attention to teaching reform and innovation. In the teaching of automobile manufacturing and experimental technology, teachers should renew the teaching and increase the teaching research. In the following, an in-depth study on the reform of automotive manufacturing and test technology curriculum under commercial vehicle standards will be conducted to provide reference.

Keywords: Commercial vehicle standard; Automotive manufacturing and testing technology; Teaching reform

1. INTRODUCTION

The major of automobile manufacturing and testing technology aims to cultivate skilled talents and promote the better development of automobile manufacturing industry. As the main front of training students of automobile manufacturing technology, higher vocational colleges aim to promote the all-round development of students. While mastering the basic knowledge of this major, they have a higher level of production technology, including vehicle assembly debugging, quality work, performance testing and so on. Form rigorous, meticulous professional spirit, become high-quality technical personnel. the course of automotive manufacturing and testing technology should be based on the actual needs to ensure that students have the technical ability to match the future career, can correctly use the appropriate tools for practical operation, take the position of organization management, quality inspection and other work, and can quickly solve problems in the production site.

2. COURSE OBJECTIVES

As an important course for the major of automobile manufacturing and testing technology, the Overhaul of Automotive Electrical System is mainly aimed at cultivating students' ability of analyzing and testing electrical appliances. In the course construction, it is helpful to promote the better development of students by adhering to the concept of task-driven vocational education. In course teaching, skills training and ability improvement are carried out based on students' vocational needs to realize the integration of teaching. Taking the emission standards of motor vehicle pollutants as an example, ecological protection should be incorporated into the curriculum system to control automobile emissions and expand the content. In addition, the proportion of class hours should be adjusted reasonably, and the practicability of courses should be strengthened to form a corresponding curriculum system guided by job demands.

3. THE PRACTICE PROCESS OF TEACHING REFORM

The goal of the reform in the teaching of automotive manufacturing and testing technology is to provide students with targeted training according to the demands of future jobs, so as to improve their market competitiveness and have more job opportunities after graduation. From the teaching content, higher vocational education should pay attention to the needs of occupation and highlight the needs of post. In recent years, the automobile industry has developed rapidly, and a large number of advanced technologies have emerged. the teaching reform must keep up with the development of the Times, update the technical content in time, and reform the curriculum reasonably.

4. RESEARCH ON THE DILEMMA OF THE REFORM OF THE PROFESSIONAL CURRICULUM SYSTEM IN COLLEGES AND UNIVERSITIES

In higher vocational college teaching, teaching reform occupies an important position, there is a direct relationship between curriculum and teaching quality, affected by various factors, the effect of curriculum reform is not satisfactory. Under the background of education system reform, in order to play the maximum role of curriculum reform, it is urgent to improve the level of higher vocational colleges. First of all, it is necessary to have a comprehensive understanding of the current problems facing higher vocational education, including the following contents: first, the lack of self-research awareness, vocational education is too backward, teachers' ability to accept new knowledge is low; Secondly, classroom teaching is so boring that students are hardly interested in it. Thirdly, students are weak in basic knowledge, which will make them afraid of curriculum knowledge and increase the difficulty of

curriculum reform. Fourthly, students' political literacy is not high. In daily teaching, people pay more attention to teachers' teaching ability and ignore the integration of ideological and political education. Although there are ideological and political contents in the curriculum system, there are some problems such as arbitrary integration [1].

5. REFORM AND IMPLEMENTATION OF HIGHER VOCATIONAL CURRICULUM SYSTEM

The reform of curriculum system in higher vocational colleges is not only to expand professional courses and change teaching content, but to carry on continuous construction and improvement. Under the influence of national policies, talent demands and other aspects, schools should determine the course content and adjust the number of subjects according to students' learning conditions and curriculum training objectives, so as to ensure that the reform of the curriculum system can meet the needs of talent development. In the automotive course teaching of experimental technology major, how to improve the effectiveness of the course has become a key issue for teachers to consider. For example, in the course teaching of automotive electrical system overhaul, the maintenance of vehicle tracking system, as an important content, is the focus of course design [2].

Automobile handling system maintenance is an indispensable part of the curriculum system. When teachers explain in detail, students should understand the working principle and system structure of automobiles accurately, and pay special attention to the error-prone content. Due to the uneven quality level of students in colleges and universities, different effects will be presented under the same teaching system. In order to achieve the teaching objectives, the ability test of students and the analysis of students' learning situation will be taken as an important reference for teaching design to ensure the rationality of classroom teaching. In the course teaching, most students are passive in learning and do not want to think independently. Teachers can use information technology to present intuitive knowledge content for students, so as to stimulate their curiosity. Based on students' interests and hobbies, theories and practices are organically combined, and students are encouraged to collect and understand real cases of automobile repair on the Internet to improve their cognition of the automobile industry, so as to combine education with pleasure [3].

Based on the teaching objectives of professional courses, and take it as the teaching direction, conduct independent exploration and independent thinking after class, learn the latest knowledge, and realize the course value. At present, the new automobile standards put forward corresponding requirements for automobile dynamic teaching, requiring teachers to actively change their teaching concepts, set corresponding modules between theory and practice courses, update activity content regularly, design corresponding curriculum system according to the actual situation, and improve and optimize related supporting facilities to ensure that it conforms to the market development trend. In the automobile production and experiment, the equipment parameters are not up to the standard requirements due to various factors, which will affect the future employment development of students. the teacher will adjust it according to the actual situation. For example, it expands the basic theory and mechanical principle for this major, and adds the contents of automobile variable valve phase, variable compression ratio technology and post-processing system, so as to improve students' hands-on ability through technical learning. Lead students to know the latest technology, understand the concept of career planning, broaden students' vision, and lay a good foundation for students' follow-up development.

In the course teaching of Automobile Electrical System Overhaul, the content of the project is reformed and the teaching effect before and after reform is compared. Focusing on vocational ability training, I studied the course content, connected the knowledge of various disciplines together, and designed the ideological and political content of the course, extending from class to after-class. After the teaching reform, students will pay more attention to the application of professional knowledge, and ideological and political education can be carried out through course teaching, so that students can experience the craftsman spirit, so as to effectively cultivate students' ideological and political spirit. In the implementation of the professional curriculum system, it is necessary to integrate the curriculum content and improve the students' knowledge system while achieving the teaching purpose.

6. CONCLUSION

As can be seen from the above, in the course teaching of automobile manufacturing and testing technology, we should first have a comprehensive understanding of the reform of the course system, and then combine the new standard of commercial vehicles to carry out the course reform and technology integration, and compare the real effects before and after the reform. Based on the current situation of education reform, it analyzes the teaching curriculum and students' learning situation, and implements dynamic adjustment, so as to promote the sustainable development of curriculum system construction.

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"Craftsman Spirit" To Lead the Higher Vocational Curriculum Ideological and Political Construction of the Three Focal Points

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Abstract: With the continuous development of education in our country, "craftsman's spirit" has become an element of the training of skilled talents. Guided by the "craftsman spirit" in the ideological and political construction of higher vocational courses, it can provide clear goals and directions and is a yardstick to evaluate the effect of ideological and political teaching. At present, integrating "craftsman spirit" into curriculum reform and creating cultural atmosphere has become an important starting point of ideological and political construction. the following will mainly study how to guide ideological and political construction with "craftsman spirit", so as to provide reference.

Keywords: "Craftsman spirit"; Higher vocational colleges; Ideological and political construction; Focal point

1. INTRODUCTION

The proposed curriculum ideological and political education is carried out with the purpose of strengthening the integration of ideological and political education and professional education, excavating the ideological and political elements contained in professional courses, refining their cultural value, and turning them into effective teaching carriers, giving full play to the educational function and value of curriculum ideological and political education. At present, there are some problems such as slow progress and disconnection of education in the course ideological and political construction in higher vocational colleges. As the core element of cultivating skilled talents, "craftsman spirit" has been concerned.

2. THE SIGNIFICANCE OF LEADING THE IDEOLOGICAL AND POLITICAL CONSTRUCTION OF HIGHER VOCATIONAL COURSES WITH "CRAFTSMAN SPIRIT"

2.1 Let teachers practice curriculum ideology and politics to find a favorable starting point

The curriculum ideological and political science originally came from some undergraduate colleges in Shanghai, which received attention and was vigorously promoted in the Ideological and political work Conference in 2016. Most of the existing studies come from Shanghai colleges and universities. the reform focuses on internal logic research, and the differences between higher vocational colleges and undergraduate colleges should be analyzed in view of the necessity of reform. For the artisans made by the People's Republic of China, in accordance with the principle of innovation-driven and green development, we should carry forward and inherit the "spirit of craftsmanship", cultivate skilled talents, create a good professional atmosphere, and take it as the core content of ideological and political education in teaching.

2.2 Point out the target direction for the ideological and political construction of higher vocational courses

The interpretation of craftsman spirit varies from period to period. Craftsman spirit is to analyze the career development trend on the basis of professional cognition, grasp the specific working process, and ensure that it conforms to professional norms. In terms of professional emotion, students are required to have a strong sense of belonging, and strive for excellence and all-out efforts in professional behavior. Higher vocational colleges can take craftsman spirit as an important standard to carry out the task of cultivating virtues and cultivating people.

3. THREE KEY POINTS OF IDEOLOGICAL AND POLITICAL CONSTRUCTION IN HIGHER VOCATIONAL COURSES FROM THE PERSPECTIVE OF "CRAFTSMAN SPIRIT"

3.1 Use "Craftsman spirit" to integrate all kinds of curriculum reform

The inheritance and cultivation of "craftsman spirit" is the responsibility that higher vocational education must shoulder, and it is also the core content of ideological and political affairs. It is possible to cultivate students' "craftsman spirit" through curriculum reform. However, there are some problems in the current curriculum teaching, such as lack of core and imperfect curriculum structure, leading to the lack of innovation in the teaching form. the lack of effective training methods and means for students' "craftsman spirit" will increase the difficulty of the smooth development of ideological and political courses. As the main front of moral education, ideological and political course undertakes the core task of cultivating professional spirit and forms a corresponding mechanism based on the outline of the theoretical system with Chinese characteristics. the connotation of "craftsman spirit" can be integrated into the course teaching. Taking the course teaching of situation and policy as an example, the background and demands of "made in China" can be integrated into the course teaching. Situational teaching and on-site experience can help students understand the connotation and significance of "craftsman spirit" and establish internal connection with their future career, so as to

improve students' professional quality. Practice "craftsman spirit" in work [1].

The "craftsman spirit" should be shaped in specialized courses to create a good cultural atmosphere for students' career growth. In terms of training mode, the cooperation between schools and enterprises should be strengthened to explore the training mode of modern apprenticeship and create an educational environment guided by the "craftsman spirit". In the course construction, change the previous discipline curriculum structure, establish contact with students' future career requirements, carry out curriculum development, integrate curriculum theory knowledge, strengthen the practical training of students in this major; In course teaching, teachers must have a strong subject consciousness, actively change their teaching ideas, take a variety of teaching methods as the guidance of problems, stimulate students' curiosity. To set an example for students, constantly improve their own moral quality, with noble ethics to positively influence students, cultivate students rigorous and serious style of work; In the course assessment, summarizing the law of growth and establishing a talent evaluation system based on the specific content of "craftsman spirit" can improve students' craftsmanship and ingenuity [2].

General education is basic knowledge, including skill and attitude education, which can effectively cultivate students' independent thinking ability and judgment ability, form unique ingenuity, and require students to have a higher cultural quality. After class, students are encouraged to choose courses such as humanistic quality and music aesthetics, in which they can feel the professional quality and "craftsman spirit" of skilled craftsmen and realize the integration of emotion and skill [3].

3.2 Create campus cultural atmosphere with "craftsman spirit"

In the course of ideological and political education, in addition to building a new pattern of ideological and political education, we should strengthen the combination of ideological and political education with the course, improve students' spiritual temperament with campus culture, promote students' sound personality, which has a certain driving force for students' development. Vocational colleges should adhere to professional characteristics in curriculum teaching and highlight the "craftsman spirit" in institutional culture, spiritual culture and other aspects. In terms of environmental culture, various places and facilities on campus can be used to integrate the "craftsman spirit", set up banners and slogans, build cultural corridors, and organize students to go to cultural experience centers to receive cultural influence. In terms of system culture, the school and enterprise cooperation and integration system should be established to create good conditions for students to get enterprise culture edification, and curriculum evaluation system should be established to form strict management system and evaluation standards. In terms of behavior culture, the teaching standards should be constructed based on the "craftsman spirit", the construction of learning style should be strengthened, and the "craftsman spirit" and professional attitude should be fully displayed in the course teaching. Activities such as vocational skills competitions can be held to provide students with opportunities to show their ingenuity. In terms of spirit and culture, building a propaganda and education platform of "Craftsman spirit" and creating a good environment have a positive impact on students' thought pattern and behavior.

3.3 Guide the training of artisans with "Craftsman spirit"

The implementation of curriculum ideology and politics is relatively dependent on the teaching level of teachers, and organizing a team of qualified craftsmen under the guidance of "craftsman spirit" can provide guarantee for the smooth implementation of curriculum ideology and politics. Modern "craftsman spirit" pursues the inner unity of morality and personality, requires teachers to recognize their own positioning and combine theory and practice in teaching. Higher vocational colleges must pay more attention to it, strengthen the training of teachers, deepen school-enterprise cooperation, realize resource sharing by establishing school-enterprise cooperation platform, and take "craftsman spirit" as the teaching goal. From the perspective of emotion and psychology, humanistic care mechanism should be established to enhance teachers' sense of belonging to the university and form professional identity. On the other hand, "Craftsman spirit" should be propagated through various channels to inherit the excellent quality of "craftsman spirit".

4. CONCLUSION

As can be seen from the above, the construction of ideological and political education in higher vocational courses guided by "craftsman spirit" can improve the disconnection between professional education and ideological and political education. Teachers should pay full attention to it, integrate ideological and political education into curriculum teaching, find a start for curriculum ideological and political education, and cultivate high-quality and skilled composite talents. Good ideological and political education can solve ideological and political problems, help students establish correct values, play an important role in regulating students' behavior, and lay a good foundation for students' future development.

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"The Belt and Road" Trend Under the Contemporary Vocational English Teaching Optimization Strategy

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Abstract: The Belt and Road is an important strategy of our economic construction development, promoting communication and trade activities between China and other countries, this needs a large number of English professionals, improve the efficiency and quality of foreign communication, for our country and the surrounding countries to exchange and cooperation provide great convenience; Therefore, English majors in higher vocational colleges need to actively change traditional education concepts and models, fully understand the needs of English majors in modern society, and cultivate and improve students' practical application ability in addition to daily teaching, so as to ensure that students can give full play to their professional knowledge and quality after entering society and work. This will lay a solid foundation for the development of foreign exchanges. the following mainly analyzes and explores the optimization strategies of English teaching in higher vocational colleges under the trend of "One Belt and One Road".

Keywords: Belt and Road; Vocational English; Teaching strategy

1. THE INFLUENCE OF THE BELT AND ROAD INITIATIVE ON ENGLISH TEACHING IN HIGHER VOCATIONAL COLLEGES

1.1 Enhanced the level of our foreign cooperation and exchanges

In general, English, as one of the tools of international communication, has a great influence on the development of the Belt and Road construction, and due to the history, culture and customs of different countries and regions are relatively different, increasing the complexity of the language situation. In order to ensure the smooth implementation of the Belt and Road construction and enhance the communication and development level between our country and these countries and regions, Relevant departments need to combine English majors of higher vocational colleges, innovate educational concepts and models, enrich teaching resources, train more English professionals, to ensure that the two sides can form accurate and effective contacts during foreign cultural exchange and trade, avoid problems caused by poor communication, and ensure the effective improvement of our foreign cooperation and exchange level [1].

1.2 Increasing the demand for foreign language professionals

The construction and development process of the Belt and Road requires sufficient communication and trade activities with other countries, which requires a large number of language talents to establish a scientific and reasonable coordination mechanism. In order to meet these work requirements, higher vocational colleges need to adjust the original teaching mode and objectives, according to the actual work needs to develop new teaching programs and content, but also can strengthen the exchange and cooperation with foreign schools, to provide convenience for later trade activities and other aspects.

1.3 Providing more channels for foreign language exchange

In addition, in the process of the Belt and Road construction, more channels can be provided for foreign language exchange and more convenience for English professional education. Due to the particularity of higher vocational education, students need to have sufficient professional knowledge and technical ability after graduation, and English majors also need to have sufficient communication ability to form composite talents in line with the needs of social construction and development. Therefore, relevant teachers and college leaders can obtain the support of education departments and develop abroad through the Belt and Road. To obtain more education and training resources, expand the space for education development, and improve the development level of English major in higher vocational colleges to the greatest extent.

2. COMMON PROBLEMS IN ENGLISH TEACHING IN MODERN HIGHER VOCATIONAL COLLEGES

2.1 The teaching concept is outdated

Through the investigation of a large number of English education work in higher vocational colleges, it is found that quite a few teachers and college leaders do not understand and attach enough importance to this work, and they still use traditional and outdated concepts and models in their daily work. As a result, students have sufficient theoretical knowledge, but also lack enough application ability, and professional quality has not been effectively cultivated. Therefore, it restricts the later learning and development of students.

2.2 Lack of advanced and effective teaching methods

In any teaching process, scientific and advanced way can effectively improve the efficiency and quality of students' learning, so as to improve the overall level of classroom teaching; However, in the English teaching

of some higher vocational colleges, due to the outdated education concept of teachers and the lack of understanding and attention to new technologies and methods, they still adopt the traditional technical methods and fail to provide scientific guidance to students, which leads to the lack of students' interest in learning and affects the improvement of the effectiveness of classroom teaching [2].

2.3 Insufficient teaching practicability

In addition, there are still some problems such as insufficient practicability when some vocational English education is carried out. the main reason is that some teachers are deeply influenced by traditional ideas, pay too much attention to the explanation of theoretical knowledge in daily teaching, and some textbooks do not keep up with the progress of the development of the education industry and the Times, leading to the outdated content of textbooks. After students enter the society and work, Can not effectively adapt to the needs of work, and then on their own work life and later development of the adverse impact.

3. THE OPTIMIZATION STRATEGY OF STRENGTHENING ENGLISH TEACHING IN HIGHER VOCATIONAL COLLEGES UNDER THE TREND OF THE BELT AND ROAD

3.1 Strengthen the improvement of students' application ability

In the current period, in order to strengthen the optimization and development of English teaching in higher vocational colleges under the trend of "One Belt and One Road", relevant teachers first need to cultivate and improve students' application ability, which is mainly due to the increase of foreign exchanges and economic and trade activities in China, which has greatly increased the demand for English professionals. Therefore, English teachers in higher vocational colleges need to strengthen the understanding and attention to this phenomenon. In addition, we should cooperate with college leaders to innovate educational content and programs, fully respect the position of students as teaching subjects, combine practical activities to exercise students' practical application ability, exercise and enhance their social competitiveness, give full play to their professional knowledge and quality, and promote the improvement of foreign exchange level.

3.2 Strengthen students' oral communication skills

Under normal circumstances, in the course of English teaching as a language, students should not only learn basic theoretical knowledge, but also have sufficient oral communication and expression skills. To this end, relevant teachers need to build a scene for students with the help of a large number of practical activities and elements of daily life for students to communicate and discuss. At the same time, it can effectively enhance students' interest in learning and further improve the efficiency and quality of classroom teaching.

3.3 Strengthen the learning and understanding of English cultural concepts

In addition to the above measures, in order to improve the English teaching level in higher vocational colleges under the trend of "One Belt and One Road", relevant teachers also need to explain some western cultural concepts to students in teaching, so as to facilitate students to understand the cultural customs and living habits of foreign people and improve the convenience of learning. At the same time, teachers also need to penetrate Chinese traditional culture and enable students to make a comparative analysis of Chinese and Western culture, so as to avoid the erosion of Western culture and ideas in their study and life, establish a healthy and correct outlook on life and values, and ensure that they can help our country obtain more benefits in foreign exchange activities. It provides a full promoting role for students themselves and the overall development of English education in higher vocational colleges [3].

4. CONCLUSION

In conclusion, language is one of the important tools and ways of people's communication and information transfer, it also bears relevant culture and thinking. When the Belt and Road work is carried out, it increases the level of communication and trade between our country and the surrounding countries, and also increases the needs of foreign communication talents. As the training base for social professional and technical talents, in the daily teaching of vocational colleges, relevant teachers should actively change the traditional education concept and model, fully understand the needs of social English professionals, adjust the teaching model and plan as a reference, and actively carry out practical activities to encourage students to transform the daily theoretical knowledge into professional skills. It will ensure accurate and effective communication with foreign personnel in the late work, provide convenience for the development of the construction of One Belt and One Road, so as to promote the further development of our social economy and comprehensive strength.

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On the Dilemma and Outlet of Korean Teaching in Higher Vocational Colleges

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Abstract: With the development of international trade, the trade between China and South Korea is gradually heating up. Korean major has become a popular major in our job market. Many higher vocational colleges offer Korean major one after another. However, there are some problems in the teaching of Korean in higher vocational colleges, which makes the teaching process difficult. Based on this, this paper analyzes the relevant predicament, and puts forward some suggestions to get out of the predicament, in order to provide guarantee for the smooth development of Korean teaching in higher vocational colleges.

Keywords: Higher vocational colleges; Korean language teaching; A dilemma; Outlet

1. INTRODUCTION

According to relevant statistics, China needs about 1 million Korean language talents every year, thus, Korean language belongs to one of the popular majors in the Chinese job market. It also indicates that higher vocational colleges are facing great opportunities to carry out the teaching of environmental education major. Higher vocational colleges are an important part of our higher education system, and their main purpose is to train relevant talents through teaching so that they will shine in our economic development [1]. In the course of teaching Korean, vocational colleges need to fully understand the social needs, so as to recruit Korean talents with strong language ability. Through the analysis of the relevant problems in Korean teaching in higher vocational colleges, this paper discusses the effective way to solve the dilemma, so as to lay a good foundation for the healthy development of Korean teaching.

2. DIFFICULTIES IN KOREAN TEACHING IN HIGHER VOCATIONAL COLLEGES

2.1 Lack of clear professional direction

At present, there are not a few higher vocational colleges offering Korean major, but through investigation, it is found that there is some blindness in the offering of Korean major in many higher vocational colleges, the lack of specialty features, and the goal of specialty setting is not clear enough. At present, the courses of Korean major in undergraduate colleges have a certain depth and height in both theory and teaching system. However, there is still a certain gap between higher vocational colleges and undergraduate colleges. Therefore, higher vocational colleges should fully consider the characteristics of vocational teaching and take the market demand as the basis for Korean teaching.

2.2 The curriculum is inconsistent with the display

The main purpose of Korean teaching in higher vocational colleges is to cultivate applied talents for the market. the current economic and trade relations between China and South Korea are increasingly close, which raises the demand for Korean language talents. However, in the course setting of Korean major in higher vocational colleges, grammar teaching is mainly used, and many textbooks are outdated and simple. At the same time, the demand for Korean talents in many enterprises is not only for translation work, but also for inter-disciplinary talents. However, the curriculum of higher vocational colleges is still in the basic stage, and the knowledge of law and economy and trade is not well understood, which makes the students of higher vocational colleges unable to work after graduation.

2.3 Teaching model lag

At present, there is a lag in the teaching mode of Korean major in many higher vocational colleges, and many teachers still use traditional teaching methods to teach Korean. the focus of teaching is the analysis of grammar and the understanding of vocabulary, which does not highlight the characteristics of Korean teaching in higher vocational colleges. As far as vocational teaching is concerned, its purpose is to cultivate practical talents, but the situation still exists that theory is more important than practice in teaching. In this case, students' actual language ability cannot be effectively improved.

3. THE WAY OUT OF KOREAN TEACHING IN HIGHER VOCATIONAL COLLEGES

China's economy is developing rapidly, and with the continuous development of national strength, great changes have taken place in the market environment and policy environment. Under this background, the development of Korean major faces great challenges and opportunities. In this regard, higher vocational colleges should actively reform the teaching mode and reasonably set up Korean courses, so as to seize the opportunities for the development of Korean major. Cultivate applied Korean talents according to market demand.

3.1 Curriculum innovation according to market demand

Vocational colleges should take the guiding role of the market as the basis when setting up Korean courses. Therefore, combining with the current situation of market and economic development between China and South Korea, the perfection and improvement of Korean curriculum system in higher vocational colleges is an important basis for Korean curriculum setting in higher vocational colleges [2]. When setting up professional courses, we should not only set up business Korean, but also set up tourism Korean and marketing Korean, so as

to promote the expansion of students' knowledge system and improve the limitation and singleness of curriculum.

3.2 Teaching model innovation

In the past, Korean teaching in vocational colleges adopted the traditional teaching model, which mainly involves teachers explaining Korean knowledge and students learning and recording it. Although this method can enrich students' Korean knowledge, it still has some shortcomings, which are mainly reflected in the inability to improve students' language ability, and the traditional teaching model does not clearly reflect the characteristics of vocational teaching. At the same time, the traditional teaching mode is dominated by teachers, and students' learning is passive. Therefore, higher vocational colleges need to innovate the teaching mode of Korean. First of all, the dominant position of students should be highlighted and students should be taken as the teaching center in the classroom. Teachers should play the role of organizer and guide in teaching, and give students sufficient space and time to exercise their Korean application ability. During the actual teaching period, teachers can use interactive teaching methods to create a relaxed and pleasant learning atmosphere for students, so as to stimulate students' interest and enthusiasm in learning, so that they can be relaxed in learning. For Korean teaching materials, the knowledge structure of traditional textbooks should be emphasized. For example, teachers can take the textbooks as the basis in teaching and make reasonable use of the Korean financial statements and Korean bidding documents used in enterprises for case teaching. Through this method, students can deeply understand the practical application of Korean and improve their understanding ability. In practical teaching, many students have some interest in Korean culture. Therefore, in teaching, Korean movies, TV plays and pop songs can be used as auxiliary materials to give in-depth explanation of Korean, so as to further improve students' interest and enthusiasm in learning Korean.

3.3 Innovative cooperative teaching

In the past, Korean teaching methods used in higher vocational colleges are relatively traditional, which is mainly influenced by traditional concepts. In teaching, cooperative teaching is mainly applied in the mode of school-enterprise cooperation and college cooperation, but in actual teaching, cooperation modes among different majors within colleges can also be carried out [3]. At present, in Korean teaching, many higher vocational colleges pay more attention to the cultivation of students' language ability, but neglect the education of students' other professional knowledge. Therefore, in the process of Korean teaching, higher vocational colleges can carry out cooperation with other majors and set up elective courses, such as Korean law courses and Korean economic and trade courses. As far as school-enterprise cooperation is concerned, the mode of school-enterprise cooperation in higher vocational colleges is at its initial stage, but certain results have been achieved. In the future, higher vocational colleges should strengthen the contact with enterprises, provide more practice and learning opportunities for students, try to arrange students to study in enterprises, but to ensure the labor rights and personal safety of students, at the same time, set up a reasonable assessment mode, on the one hand by the enterprise feedback, on the other hand, students to summarize, based on this to promote students' comprehensive ability of Korean application.

4. CONCLUSION

Vocational colleges should take vocational teaching as the basic point of Korean teaching, adjust the teaching mode at any time according to the market demand of Korean talents, take students' practical learning ability as the teaching goal, and focus on cultivating students' practical application ability of Korean. At the same time, according to the actual situation of our economic development, the future Korean curriculum system should be innovated, the teaching model and teaching system should be actively improved, and the overall level of Korean majors in higher vocational colleges should be guaranteed.

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Application of Research-based Teaching in Pathogenic Biology and Immunology

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Abstract: Research-based teaching is a novel pedagogical approach that enables students to gain an in-depth understanding of the subject matter, enhance their practical and innovative abilities, and cultivate a research mindset and scientific inquiry skills. This teaching model incorporates practical experiences and exploratory spirit into classroom instruction, fostering a scientific attitude of being innovative, curious, and persistent. Using microbiology and immunology as a case study, this paper explores the application of research-embedded teaching in these two disciplines. Microbiology and immunology are critical branches of life sciences that have significant implications for human health and disease prevention. the integration of research-based teaching in these fields can aid in the better comprehension and mastery of disease mechanisms, fundamental principles of the immune response, and experimental skills among students. Furthermore, it encourages students' research interests, cultivates innovative thinking, and sharpens problem-solving abilities.

Keywords: Research-based teaching, Microbiology, Immunology, Experimental skills, Innovative abilities.

1. INTRODUCTION

Microbiology and immunology are critical branches of life sciences that have significant implications for human health and disease prevention. With the continuous advancement of technology, research in these fields is continually evolving. However, traditional teaching methods often focus excessively on the imparting of theoretical knowledge, with limited opportunities for practical application and exploration, which can hinder students' interest and innovative abilities. Research-based teaching, as a novel pedagogical approach, can effectively address this issue [1]. It organically combines scientific research with teaching, allowing students to gain opportunities to learn knowledge and master research methods by participating in scientific research. Research feedback teaching is a developmental teaching method, whose core is to stimulate students' learning interest and practical ability. By imparting research methods and practical experience to students, they can improve their research ability and academic literacy.

The core characteristic of research-based teaching is strong practicality, emphasizing exploration and creation. It can awaken students' enthusiasm for learning, comprehensively broaden their horizons at the cognitive and operational levels, and help them develop basic qualities with innovative spirit and practical application ability.

This paper aims to explore the application of research-based teaching in microbiology and immunology teaching, proposing specific cases and methods as a reference for teaching practice.

Microbiology and immunology are two related fields that investigate the occurrence and spread of diseases. Microbiology mainly studies the growth and reproduction of microorganisms (such as bacteria and viruses) in the body and their mechanisms of causing diseases. Immunology mainly examines how the body responds to external invasions, protecting the body from disease through the immune system. These two fields are closely related and interdependent.

In the fields of pathogenic biology and immunology, the application of research-based teaching has multiple advantages. Firstly, through practical means, students can gain a deeper understanding of relevant theoretical knowledge, making it easier to master scientific research methods and techniques. Secondly, students can participate in real scientific research projects and fully experience the entire process of scientific research, thereby cultivating their research and practical skills. In addition, research-based teaching can effectively promote the teaching effectiveness of teachers, and through the participation and contribution of students, timely grasp the learning situation and problems of students, and quickly correct the problems and deficiencies in teaching.

On the other hand, research-based teaching has also encountered some challenges and difficulties in practice. Firstly, research feedback teaching requires more practical venues and resources to provide a high-quality research practice environment and technical support. Secondly, research-based teaching requires students to have a certain scientific research foundation and independent thinking ability, and students' scientific literacy and practical ability need to be strengthened in teaching. Finally, there is a need for more rigorous and effective evaluation and feedback mechanisms in research-based teaching, in order to timely follow up on students' learning outcomes and problems, optimize the teaching process, and improve students' comprehensive evaluation.

2. METHODS

This paper employs a combination of literature review and practical experience to explore the application of research-based teaching in microbiology and immunology teaching.

2.1 SCIENTIFIC LITERATURE RESEARCH

Analyzing and consulting literature is an essential part of research-based teaching. When it comes to microbiology and immunology courses, the emphasis of literature reading should be on the latest research developments. For example, in microbiology, relevant literature can be studied based on current epidemics and infectious diseases, to gain an in-depth understanding of the pathogenic mechanisms of microorganisms and prevention and control strategies [2]. In immunology, students can read the latest research on immune regulation and immunotherapy, as well as the application of immunology in treating various diseases [3, 4]. Through literature review, students can learn about cutting-edge research achievements and development trends, thereby understanding the current research hotspots, difficulties, and controversies in the discipline. At the same time, reading literature reviews can also improve students' research and literature search abilities, cultivating a foundation for scientific research work.

2.2 OFFERING MICROBIOLOGY AND IMMUNOLOGY LABORATORY COURSES

Practical work is an effective method for students to deepen their understanding of disease mechanisms and immune response principles. Common experimental techniques include bacterial culture, PCR amplification, Western blot, and others. Students can gain an in-depth understanding of experimental techniques, operation procedures, and data interpretation in the fields of molecular biology, cell biology, and immunology through these experiments. In addition, some cutting-edge technologies and methods, such as gene editing technology and high-throughput whole-genome sequencing, can also be introduced into teaching to assist students in understanding the latest scientific technologies and research methods. Students can combine practical operations with theoretical knowledge through a combination of laboratory and classroom teaching. Laboratory operations can allow students to personally experience and explore practical experimental steps. the combination of theoretical knowledge learning and practical operations enables theory and practice to promote and supplement each other, making students' learning more practical.

2.3 DATA ANALYSIS

Data analysis is an indispensable part of pathogen biology and immunology. Students need to learn how to process and analyze relevant data, such as gene sequencing data, proteomics data, microbiome data, etc., to extract valuable information from a large number of data and explore new scientific problems.

2.4 EMPHASIZING STUDENT THINKING AND INDEPENDENT LEARNING

Research-embedded teaching needs to emphasize students' thinking and independent learning. Teachers should guide students to actively think, diverge thinking, discover problems, and attempt to solve them. At the same time, students need to have ample time and space for independent learning, encouraged to explore and collect resources, and conduct independent research and investigation on relevant topics under the guidance of teachers, forming their own viewpoints and opinions.

3. RESULTS

Through a review of relevant literature and practical experience, we found that research-based teaching has the following advantages in the teaching of pathogenic biology and immunology.

Improving students' interest in learning: Research-based teaching can incorporate cutting-edge research findings into teaching, making students more interested in the course content and increasing their learning interest. It can broaden students' knowledge and horizons. Through the method of scientific research-based teaching, students can learn more about pathogenic organisms and immunology, improve their cognitive level and comprehensive literacy.

Enhancing students' experimental operation ability: By applying scientific research results to experimental operations, students can not only learn relevant theoretical knowledge, but also practice and master experimental skills, cultivating their practical abilities. At the same time, research feedback teaching can also enable students to design and improve conventional experimental methods, thereby improving their innovative thinking and experimental abilities.

Enhancing students' research ability: Research-based teaching can cultivate students' research thinking and abilities, making them more familiar with research methods and processes. At the same time, it can also promote academic exchange and self-improvement. Students who participate in research feedback teaching can not only explore and solve problems during the research process, but also share research results and receive feedback and suggestions from others in academic exchanges, thereby better improving their academic abilities and levels.

Cultivate students' critical thinking ability and teamwork spirit. Research-based teaching emphasizes the cultivation of independent thinking, inspired exploration, and innovative abilities, which can help students form a system of independent thinking, independent design, and problem-solving abilities, and cultivate a scientific spirit of daring to question, explore, and actively innovate. In the research-based teaching, students need to complete experimental research projects through collective cooperation and coordination, mutual cooperation, and division of labor, which enhances their team spirit and communication skills.

Improving teaching effectiveness: Research-based teaching can combine research findings with teaching content to improve teaching effectiveness, enabling students to better grasp course knowledge.

4. DISCUSSION

Pathogenic biology and immunology are closely related disciplines that involve multiple levels and aspects of human health and disease occurrence. Their research is of great significance for the prevention and treatment of diseases. With the continuous progress and development of medicine, pathogenic biology and

immunology have become one of the most cutting-edge and profound disciplines. In order to meet practical needs and development trends, adopting research-based teaching has become a popular talent cultivation method in the field of pathogen biology and immunology. the application of research-based teaching in these two disciplines can help us better understand the interaction between pathogens and hosts, thereby providing more effective methods for the prevention and treatment of diseases.

In terms of pathogenic biology, research-based teaching can help us better understand the biological characteristics and pathogenic mechanisms of pathogens. Through the study of genomics, transcriptomics, proteomics, and other aspects of pathogens, we can gain an in-depth understanding of their basic biological characteristics, including their growth, reproduction, transmission, and pathogenic mechanisms. In addition, research-based teaching can also help us discover new pathogens, predict the spread trend of pathogens and the variation of pathogens, thereby providing more effective methods for the prevention and treatment of diseases.

In immunology, research-based teaching can help us better understand the biological characteristics and immune response mechanisms of the host immune system. By studying the genomics, transcriptome and proteomics of the host immune system, we can deeply understand the basic biological characteristics of the host immune system, including its immune response mechanism, immune regulation mechanism and immune tolerance mechanism. In addition, research feedback can also help us discover new immune regulatory molecules and immunotherapy methods, thereby providing more effective methods for disease prevention and treatment.

The application of research-based teaching in pathogenic biology and immunology can effectively improve teaching effectiveness. Through reasonable teaching plans and innovative teaching models, cultivate students' practical abilities and scientific research spirit, strengthen interaction and communication between teachers and students, and enhance students' interest and motivation. In the teaching of pathogenic biology and immunology, we should further innovate educational models and improve the education and training system in the future to improve students' comprehensive quality and competitiveness in research and practice, and promote the further development of the discipline.

5. CONCLUSIONS

Research-based teaching is a method of integrating scientific research results into educational and teaching courses in an exploratory, problem-driven, and goal-oriented manner, aimed at strengthening students' research and innovation abilities, enhancing their understanding of disease mechanisms, and cultivating their experimental skills. In the implementation process, a scientific teaching outline needs to be developed, safety awareness should be emphasized, and research methods and skills applied to laboratory operations and student research projects. It is also important to strengthen interaction between teachers and students, promote student thinking, and facilitate learning. In the future, research-based teaching will continue to play an important role in the fields of pathogenic biology and immunology, providing students with more comprehensive and effective talent cultivation methods, cultivating more practical abilities and scientific research spirit, and accelerating the development and innovation of disciplines.

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IT and the Future of Society

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Abstract: the processes of digital transformation of the global and national economies have long become one of the topical themes of modern interdisciplinary research. the use of digital data is becoming a key factor in production, allows people to create new business models and provides powerful competitive advantages for companies in the global and regional markets. According to many experts, robotization and artificial intelligence will be the main drivers of the digital transformation of the economy.
Keywords: Education, scientific, Expansion, professionalization.

1. INTRODUCTION

The rapid development of technologies in the field of power engineering, mechanical engineering, microprocessor technology and telecommunication systems causes a new stage in the production and use of robotic systems. Since the middle of the 20th century, such systems have been used in a number of areas of human activities in order to automate the performance of hard or dangerous work for humans. the applied applications of robotic systems include the manufacture of parts and prefabricated structures of varying complexity, maintenance of warehouses, military operations and rescue, housework. [1] Robots are also used in such areas as the exploration of the planets of the solar system, medicine, the entertainment industry, etc.

Simultaneously with the spread of robotic systems, the level of their intellectualization also increases. This process brings robotic systems to a new stage of development, when robots are gradually transformed from an instrument of labor into subjects of social life. At the same time, the people themselves change, their activities, their productivity, their way of life, world outlook, and the life world. the purpose of this paper is to analyze the impact of intelligent robotic systems on society, and to assess the prospects for the social integration of robotic systems. [2-3]

The first section of the research report discusses the development trends of intelligent robotic systems and the second section discusses the positive and negative consequences of the development of intelligent robotics. Despite the enormous benefits of using robots in daily activities, it is time for humanity to look for ways to reduce the negative effects of AI (Artificial Intelligence) and strengthen its positive ones. Changes in the following areas will be required: digital transformation, economies, robotization, artificial intelligence. [4]

(1)Education and skill development: necessary to upgrade the centuries-old model of education and develop skills instead related to an economy based on AI, as analytical, creative and interpersonal.

(2) Expansion and deepening of professionalization in Services: health, education, transport, logistics, etc. This sector will be capable to provide significant employment growth in the future. For new professions should be set higher standards and academic requirements that will become control devices with AI.

(3)The focus of scientific and technological progress. It is necessary to distinguish between "innovations that improve people, " that increase and improve sensory, motor and other similar human capabilities, and Human-replacing innovations (HRI) that will replace the person in the main processes, and people will remain the role of "servants" of smart machines. [5] HRI, enhanced by the potential of AI, can be the basis the birth of a new wave of innovation and growth performance, especially in services. Therefore, the innovation process must take into account the future employment people.

2. LITERATURE REVIEW

By artificial intelligence, we mean the ability of a computer to think, act and learn as a person, and its increasing, impact on society cannot be denied (Ginsberg, 2015). Technologies based on artificial intelligence have already become generally accepted in many industries and have potential advantages of such magnitude that it is expected that with their help, the rate of annual economic growth in some developed countries will double in the future. However, the introduction and appearance of such highly innovative technologies also brings its new issues and various challenges (Baldwin, Martin, & Pilsworth, 2014).

An ever-expanding introduction of artificial intelligence-based technologies — from chat bots to autonomous robotic cars is transforming industry and society, bringing with it benefits such as increased efficiency, new products, and fewer repetitive tasks. By 2035, artificial intelligence-based technologies are expected to increase corporate productivity in 16 industries in 12 countries by an average of 38% (Bench-Capon, 2007).

Existing artificial intelligence technologies use so-called “weak” intelligent agents that exhibit cognitive abilities in certain areas, such as driving, solving a puzzle, or recommending products/actions (Mateas, 2017). First tangible benefits technologies based on "weak" artificial intelligence are already aware in many industries, therefore, expectations from technology based on artificial intelligence grows and more investment is made in their development in order to the first to take advantage of the future will give more humanoid or "strong" artificial intelligence (Bench-Capon, 2007). Its implementation is likely to be

unprecedentedly revolutionary for current business models. However, for a number of reasons, artificial intelligence brings with it not only benefits, but also far-reaching consequences for the economy, politics, mobility, health, safety and environmental protection. It will confuse the labor market by changing the nature of long-established roles, and can be used to influence political thinking and opinions (Mateas, 2017). the risks and benefits will manifest themselves in the short or long term, depending on how long it takes to implement technologies based on "strong" artificial intelligence in our world. the adoption of artificial intelligence highly depends on the amount of investment which made on research and how these technologies are developing in each of the applications (Kerber, 2015).

3. SOCIAL CONSEQUENCES OF THE DEVELOPMENT OF ROBOTIC SYSTEMS

The confusion that will bring the emergence of technologies based on "strong" artificial intelligence will suffer to the whole society. Given the wide range of applications, artificial intelligence. It has both advantages and risks in many areas: economics, politics, mobility, health care, defense and environmental protection. Risks and benefits can manifest themselves both in the short term and in the long term, “from strong” artificial intelligence, in order to start using in the real world.

3.1 IMPACT ON THE ECONOMY

Although artificial intelligence is expected to cause an increase in GDP, performing existing jobs more efficiently for the reduction in labor resources, which is primarily due to the aging population, the potential replacement of many low- and middle-income jobs with them can cause high unemployment. Such scenarios will require new ways to define responsibility and reduce the risks of social insecurity. For example, governments can introduce guaranteed base income or a tax on robots so that everyone can benefit from automation and “robotization” of society. Also, an important role in shaping political and corporate strategies will be played by ethical factors such as the meaning of labor and the organization of interaction between man and artificial intelligence in the workplace. Wider ethical concerns relate to the extent to which machines must replace people in critical areas such as surgery, treatment, lawmaking and decision-making by the authorities. If the machines prove better than the people, the people involved in these areas may become smaller, and there will be a lack of knowledge in society about the implementation of such critical human activities.

3.2 INFLUENCE ON MEDICINE

Health care is a sector of the economy in which artificial intelligence is expected, perhaps, of the greatest benefits to society. For example, through the use of advanced data analysis, the determination of the sequence of human DNA will ensure the eradication of many incurable diseases, including cancer. Improved cognitive abilities will enable intelligent agents to provide specialized medical advice and diagnose diseases that would otherwise require identification and cross-checking through a large number of medical observations. the quality of life and its average duration are expected to increase. In addition, the problem of low availability of medical services in remote regions of the planet will be solved through mobile medical consultations based on artificial intelligence. At the same time, the use of advanced artificial intelligence to care for the elderly and children carries the risk of psychological manipulation and incorrect assessments. In addition, the problem of protecting the personal data of patients when using artificial intelligence medical documentation for researching new diseases draws great attention to the need to improve the legislative regulation of data protection and patient rights.

3.3 INFLUENCE ON ENVIRONMENTAL PROTECTION

Artificial intelligence can help solve one of the most difficult problems of this century - climate change. Using technologies based on artificial intelligence, smart cities and smart grids are already reducing their per capita emissions. In addition, artificial intelligence-based robots can be operated in adverse conditions where they cab be used in toxic or/and highly harmful environment. Artificial intelligence is one of the main components for the introduction of nanobots that can have dangerous consequences for the environment, unnoticeably modifying substances at the nanoscale. For example, nanobots can trigger chemical reactions that will create invisible nanoparticles with toxic and potentially lethal properties.

3.4 IMPACT ON PROTECTION AND SAFETY

Software based on artificial intelligence can potentially improve global security, as well as reduce risks for companies by helping to identify cyber-attacks and terrorist activities. Monitoring and analysis of social networks, financial transactions and other large data sets are already used by intelligence and security services to identify and predict threats before they occur. Artificial intelligence can help develop complex and reliable hypothetical, designed to evaluate, long-term perspectives. On the contrary, the misuse of strong artificial intelligence can increase the risk of cyber-attacks if hackers with criminal intent teach artificial intelligence to attack. Autonomous weapons, such as drones, can also be used. Threats of this kind are often underestimated.

Like any world-class technology, intelligent robotic systems offer mankind many perspectives, but at the same time, they carry a number of potential dangers. Obvious consequences of the development of intelligent robotic systems seem to ease human labor, increasing the number of material benefits per capita (Tsugawa, 2011). But it is difficult to talk with confidence about alternatives to the spiritual development of society, maintaining social justice, the distribution of economic benefits, the establishment of a balance of power in the world arena. Here, much depends on the people themselves, and on the political situation in which the

coming leap in the development of intelligent robotics will occur.

Table 1 Possible consequences of the development of intelligent robots in various spheres of public life

Public Sphere	Positive consequences	Negative Consequences
Economic	production intensification and economic growth; expansion of humanity into outer space	increasing unemployment rate; social stratification due to uneven distribution of technology
Political	rational government; elimination of internal and foreign conflicts	the growth of the damaging ability of military equipment; totalitarianism based on powerful law enforcement
Spiritual	freeing time for the spiritual growth of a person; the emergence of new masterpieces of art created by robots	lack of spiritual purposefulness on the background of an excess of material wealth; failure to communicate in favor of interaction with robots
Social	A new level of education, health, public services; de-urbanization on a new technological basis	environmental degradation; threat to humanity as a weaker mind

On the other hand, even now, the abilities of robots make us think that sooner or later intellectual robots will become subjects of political relations that can influence the life of society. In the coming decades, this influence will be largely passive (Hayes & McCarthy, 2014). It will manifest itself exclusively in the application of such systems along with the usual technical devices. However, in the long run, when the intelligence of technical systems approaches the human level, it is possible that robots replace existing power structures, like how traffic lights can replace traffic controllers.

Intellectual robotics holds a huge potential for the development of the spiritual sphere of public life (Fogel, 2017). Having transferred the work to the shoulders of technology, a person will be able to devote more time to creative activities. the creative abilities of people at the same time will be repeatedly enhanced by the capabilities of robotic systems controlled by the neurocomputer interface.

It should, however, be remembered that an alternative option is also possible when the thoughtless use of intelligent robots will lead to an exacerbation of social and political problems (Tsugawa, 2011). Robots will then become the cause of unemployment, material separation, and the alienation of people from each other. It is also possible that the use of robotic systems will exacerbate military conflicts, cause irreparable harm to the environment and even threaten the existence of humanity. Such negative consequences can be avoided only with proper control over the distribution and use of intelligent robotic systems.

4. ETHICAL DILEMMA OF ROBOTICS IN SOCIETY

During the twentieth century, the introduction of a variety of new technologies designed to improve human life has often led to many negative side effects (Boden, 2014). Popularization of cars led to air pollution. Achievements of nuclear power not only gave us cheap energy, but also caused disasters in Chernobyl and Fukushima.

Artificial intelligence is a tool that allows you to solve certain problems that do not require a full range of human cognitive abilities. Currently, these machines are widely used in various fields of human activity. the most striking example is expert systems. An expert system is a program that replaces an expert in a particular field. Examples include the MICIN, a medical diagnostic system developed by specialists from Stanford (Ginsberg, 2015). Based on the reported symptoms, the expert system can make the diagnosis itself and report the recommended course of treatment. the modern economy is completely dependent from the use of computing in general and artificial intelligence programs in particular. For example, in the United States, tasks such as checking applications and issuing permits for issuing credit cards are performed by artificial intelligence programs, which makes consumer credit more affordable. But even the use of this seemingly exceptionally harmless AI can lead to some problems. the first is the problem of unemployment. the conclusion is that due to the popularization of such programs, thousands of employees lost their jobs. But in reality, the use of AI systems is much cheaper than manual labor. Currently, the automation of production and services using intelligent machines creates more jobs than eliminates, and also leads to the emergence of more highly paid and interesting specialties (Ennals, 2011). Lawrence Katz, arguing about this conducted a large-scale study of how, over several centuries of human history, technological innovations influenced the number of jobs, and concluded that in the long term over the long term, the share of employment is fairly stable (Tsugawa, 2011). In this sense, automation using artificial intelligence systems is no more dangerous than non-intelligent automation. Another problem associated with the use of artificial intelligence systems is the problem of responsibility. For example, if the doctor listened to the opinion of the expert system regarding the diagnosis, then who would be responsible if the computer was wrong? It is now generally recognized that the implementation of procedures by a doctor with a high expected utility cannot be considered neglect of service responsibilities. Modern expert systems can not directly influence the patient, they affect the opinion of the doctor, and in this sense perform the same function as reference books or medical textbooks (Gillies, 2014). Experts are obliged to understand the prerequisites of any program solution and independently make the choice to obey or not the opinion of artificial intelligence. Therefore, at present, it is impossible to shift responsibility from a specialist to a machine, but if computing systems once will reliably make more accurate decisions compared to people, in this case, the

role of a living specialist is leveled, and the expert system approaches the strong artificial intelligence associated with a number of very different ethical issues.

5. CONCLUSION

There are broad prospects for the development and application of robotic systems in various spheres of public life. Realize the possible consequences of their use and choose the best way of social integration of robotic systems is necessary now. Further development of the robotics will not be limited to increasing the speed and quality of production of consumer goods. It promises mankind new discoveries and achievements in the energy, industry, medicine, culture. Intelligent robots will enable the new technological level to develop the uninhabited territories of the Earth and outer space. At the same time, it is necessary to constantly monitor the role of man in this new, automated, world. And strive to ensure that the unlimited possibilities of robotic systems are not wasted but are used for the personal development of man and the solution of human tasks that, by and large, have yet to be determined.

In conclusion, it is worth noting that some of the threats considered in the research report in ethical section are unlikely, others are no more dangerous than problems of non-intellectual technologicalization, but one thing is for sure: the invention of strong artificial intelligence will change people's lives beyond recognition. This does not mean that we should abandon the study of this sphere, being afraid, for example, of the loss of humanity. Throughout history, many technological innovations have raised fears among people, but science has always triumphed. Thus, atomic energy was born from the atomic bomb, and the study of such an ethically controversial field of science as cloning technology made it possible to treat previously fatal diseases. Thus, the development in the field of artificial intelligence should continue, but to analyze the possible consequences for society as a whole and the individual in particular, it is worthwhile to involve not only engineers but also philosophers, sociologists, economists, psychologists.

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Teaching Design of "Motor Control Technology"

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Abstract: Through years of teaching and research on the course "Motor Control Technology" in the field of electrical automation technology, this article elaborates on the implementation of teaching using projects as a carrier in the learning context. At the same time, it analyzes the conditions and issues that should be met in the teaching process, and elaborates on the methods, contents, and implementation plans for constructing teaching projects.
Keywords: Higher vocational education, Learning context, Project-based teaching method.

1. INTRODUCTION

The learning context teaching method is aimed at the learning situation of vocational college students. By creating a learning context, selecting corresponding projects as carriers, and implementing projects, students can master the knowledge points and the entire project workflow in the learning context. Through knowledge transfer, discussion, and cooperation, students can actively complete the learning of knowledge and skill acquisition in the actual work environment. It works establishing a connection between the classroom and social production effectively enhances students' theoretical and practical abilities, laying the foundation for their future skill development. [1]

2. THE NECESSARY CONDITIONS FOR IMPLEMENTING PROJECT-BASED TEACHING METHODS IN LEARNING CONTEXTS

Implementing project-based teaching in a learning context is a teaching activity carried out for a complete task, which must be achieved through the joint efforts of teachers and students [2]. the project must be designed for each teaching content and completed independently by students. Completing this task can achieve good teaching results, therefore the following conditions should be met:

(1) In the learning context, the project implementation process must be conducive to learning certain teaching content;

(2) Be able to combine the theory and practice of teaching content;

(3) Learning projects stimulate students' interest in learning and enhance their learning enthusiasm;

(4) During the process of completing the project, when students encounter problems, the guidance of the teacher should be limited;

(5) In order to objectively evaluate students' completion status, a clear evaluation system must be established;

3. ISSUES TO PAY ATTENTION TO WHEN IMPLEMENTING PROJECT-BASED TEACHING METHODS IN LEARNING CONTEXTS

When implementing project-based teaching, it is necessary to identify effective and feasible projects to align with the learning context. To determine a good teaching project, it is necessary to consider the above conditions to determine an effective teaching project for travel. For example, when discussing "Disassembly and Assembly of Asynchronous Motors", the designed project is to complete the disassembly and assembly of a three-phase squirrel cage asynchronous motor.

The task description is to have a Y90S-4 three-phase squirrel cage asynchronous motor, which needs to be disassembled and tested for winding faults. the condition of each mechanical structure component is normal, and the stator cavity is cleaned. After inspection, the motor is correctly installed and unloaded for operation.

The specific requirements of this teaching project include writing a project implementation plan, listing the basic structure and material list of the motor, determining the first and last ends of the stator winding and the method of insulation resistance testing, and listing the tools, instruments, and meters used in the work implementation process.

In the process of project implementation, when students need to solve problems, they must be student-centered, guided by teachers, and solve the problems raised by students through learning and doing. Finally, based on the results of students' work, they can provide guidance in the form of leak detection and filling, which is to follow the model of "theory- practice- theory" for project teaching. [3]

In a learning context, the key to learning is to select items that match the context. We should select projects based on the teaching content and use real-life objects as materials, which should not only include basic teaching points but also stimulate students' enthusiasm for problem-solving.

Starting from the independent completion of students, teachers and students should jointly participate in the selection of projects. For projects with a wide range of knowledge, it is advisable to consider group cooperation to complete them. For example, during the implementation of the project 'Disassembly and Assembly of Three Phase Squirrel Cage Asynchronous Motor', the disassembly and assembly project was selected based on the Y90S-4 Three Phase Squirrel Cage Asynchronous Motor in the training room. This work process cannot be completed independently by students,

and students must be required to collaborate in groups to complete it. When grouping, students should be stratified to a certain extent and matched reasonably.

When conducting project-based teaching, teachers can conduct extensive surveys based on factors such as students' academic performance, learning attitude, willpower, intelligence, and abilities, and make reasonable grouping based on the survey. the purpose of doing this is to enable each project team to have a "leader" and use their command to jointly complete the project, achieving the teaching goal of individualized teaching. [4]

Adopting distinctive teaching methods. In the process of implementing project-based teaching methods in learning contexts, corresponding teaching methods should also be adopted, such as multimedia teaching, audio-visual media, images, Flash animations, etc. This method is dynamic, allowing knowledge to shift from abstract to visual, and can enhance students' interest in learning. When explaining the basic structure of the motor, the animation of the complete machine disassembly of the motor is used to demonstrate its structure truthfully, which stimulates students' interest in learning and enhances their enthusiasm for completing project implementation. Based on the above analysis, when teaching the disassembly and assembly project of motors, the following process should be followed for design and implementation: Design and determine the project- Assign tasks-Students access materials, discuss, solve problems, and develop plans-project implementation-Project Completion-Evaluation and summary.

4. IMPLEMENTING PROJECTS IN A LEARNING CONTEXT

After the project design is completed, it is time to consider how to implement it. When using project-based teaching methods to implement teaching content, it is necessary to reflect three central changes: from teacher centered to student centered, from textbook centered to project centered, and from classroom centered to on-site teaching centered. In the process of implementing project teaching, the following points should also be noted:[5]

4.1 THE DIFFERENCE BETWEEN PROJECT COURSES AND GENERAL COURSES

For project courses, the focus of goal design should reflect students' professional ability standards, which should include the ability goals of the entire course and the ability goals of the project. At the same time, the design of teaching goals should also pay attention to including professional ability, methodological ability, and social ability. the main goal of general courses is to teach knowledge and design key content. [6] For example, when implementing the disassembly and assembly project of a three-phase squirrel cage asynchronous motor, the professional ability goal of the design is to master the structure and working principle of the three-phase asynchronous motor, the method ability is to independently disassemble and install small and medium-sized motors, the social ability goal is to be able to carry out simple troubleshooting in work, and to undertake the repair and maintenance of large system motors.

4.2 IMPLEMENTATION OF DIFFERENT STAGES OF THE PROJECT AND ARRANGEMENT DESIGN FOR EACH STAGE

Project teaching is generally divided into three stages, namely the beginning stage, the unfolding stage, and the ending stage. In each stage, the focus of teaching is different, and we teachers need to firmly grasp the key links and goals to organize teaching. [7]

When implementing the disassembly and assembly project of a three-phase squirrel cage asynchronous motor, the initial stage is for the teacher to assign tasks, propose specific requirements, and clarify the goals to be achieved in completing this project. Students learn independently, consult materials, master the basic structure and working principle of the motor, and use the disassembly and assembly process guide book of a three-phase asynchronous motor to design the project implementation process. For example, in this stage, students can design four steps based on task descriptions and specific requirements: removal, testing, maintenance, and installation. [8]

After the task implementation design is completed, it enters the unfolding stage. This process relies on students' personal practice to discover problems and explore solutions. After learning knowledge, teachers should give priority to prompts. For new knowledge points, teachers should teach them in a timely manner. This process involves gradually removing various components of the motor to help students understand the structure of the motor.

Throughout the entire task implementation process, teachers should provide continuous guidance and solve different problems for different students. This is a very important teaching activity in the learning context teaching process. During the project implementation process, teachers should walk more, watch more, speak more, and demonstrate more. Regularly walk to each workstation of students, observe their operations, and promptly explain and correct any problems found. If any improper operations are found during the teaching process, provide timely demonstrations to students. [9]

In the process of project implementation, there are generally three types of problems: the first type is common problems, which are common to most students. For such common problems, students can be reminded to temporarily stop the current operation, and the teacher can explain and demonstrate to the entire class, so that students can master the operating essentials and skills, and immediately correct errors. the second type is minority problems, which are problems that a few students need to solve. For a few issues, teachers can gather a few students at the corresponding workstations for operational guidance and demonstration, correcting errors and improper operations. the third type is individual problems, and teachers can explain and demonstrate to the student on the spot to correct errors and improper operations. [10]

By dismantling the motor, conducting tests on the same end of the stator winding, testing the insulation resistance of the stator winding, maintaining the motor, and finally installing it, the entire project has been completed and entered the end stage. This stage is the assessment and evaluation of students' completion of tasks, and is also the final work activity. It can be divided into two aspects: first, theoretical knowledge summary and evaluation, and second, operational skills summary and evaluation. [11]

Theoretical knowledge summary and evaluation refers to sorting out the theoretical knowledge learned in this project, briefly explaining the key and difficult points, in order to strengthen students' understanding and mastery of theoretical knowledge, and conducting assessment and evaluation of key knowledge. When summarizing and evaluating operational skills, teachers should focus on explaining, demonstrating, and evaluating errors and inappropriate operations during project implementation, so that students can further standardize their operations and gradually improve their professional skills.

5. CONCLUSIONS

At present, the project based teaching method is fully implemented in the course of "Motor Control Technology". There is no mature model or ready-made teaching materials, and everything depends on continuous exploration by teachers. To achieve good teaching results, teachers also have to face numerous challenges, experience countless hardships, and put in several times the effort of traditional teaching.

In addition, project-based teaching method is different from traditional teaching methods. Under existing conditions, in order to fully implement project-based teaching method and achieve good teaching results, it also requires the support and assistance of relevant departments, such as venues, hardware equipment, etc., which require the cooperation of relevant departments.

In the specific practice of project-based teaching method, the role of a teacher is no longer an encyclopedia or a database for students to use, but rather a guide and consultant. He helps students quickly advance on the path of independent research and guides them on how to discover new knowledge and master new content in practice. As the main body of learning, students organically combine theory and practice by independently completing projects, not only improving their theoretical level and practical skills, but also cultivating comprehensive abilities such as cooperation and problem-solving under the purposeful guidance of teachers. Meanwhile, in the process of observing and helping students, teachers broaden their horizons and improve their professional skills. It can be said that project-based teaching method is a teaching method where teachers and students work together to complete projects and make progress together. In vocational schools and education, the project-based teaching method has its unique advantages and should be further summarized and improved, vigorously tried and promoted.

In project-based teaching, the learning process becomes a creative and practical activity in which individuals participate, focusing not on the final outcome, but on the process of completing the project. During the project practice process, students understand and grasp the knowledge and skills required by the course, experience the hardships and joys of innovation, and cultivate the thinking and methods of analyzing and solving problems.

In short, through careful planning, design, and organization of project teaching methods, theoretical teaching and practical teaching can be organically combined. This is beneficial for students to deepen their understanding and grasp the theoretical knowledge of books, teach them how to flexibly apply these knowledge to improve their operational skills and work abilities, and also enable the talents cultivated by schools to better adapt to the needs of society.

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Construction of Industrial Robot Curriculum Based on Project-Based Teaching

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Abstract: The content construction of professional courses should meet the needs of social industrial development and satisfy the employment needs of enterprises while conforming to students' career development planning. This paper takes the application of industrial robots in the automation production line of piston engines as an example and carries out modular teaching reform for the course "Installation, Debugging and Maintenance of Industrial Robots on Automatic Lines". the content design of this course adopts the project-based teaching method and makes it more efficient. This approach allows students to apply their knowledge and skills in a practical setting, which can help them to better understand and retain the material. Additionally, working on projects can help to develop important skills such as problem-solving, critical thinking, and collaboration. Overall, the project-based teaching method can make the course more engaging and effective for students. the course content construction is centered on teaching, learning and doing as a whole, aiming to improve students' core vocational skills.

Keywords: Curriculum construction, Curriculum design, Project-based Teaching.

1. INTRODUCTION

Industrial robots are an indispensable part of industrial automation production and are the actual implementers of automated production. They can be found in various industries [1]. In automobile production lines, industrial robots replace human labor to perform welding, painting, gluing, assembly and other processes, greatly improving production efficiency. Industrial robots, as the actual implementers of automated production, are a comprehensive subject with strong applicability, involving cross-disciplinary subjects such as electrical technology, advanced mathematics, linear algebra, mechanical drawing, C language, hydraulic technology, PLC, motor control technology and servo motion technology. It is different from general theoretical subjects. Its learning content involves both theoretical knowledge and the need to exercise operational skills. It requires students to have a solid theoretical foundation, keen observation skills, strong hands-on ability and unique innovation ability. It also places high demands on students's ability to solve on-site problems. At present, the traditional teaching method is to teach theoretical knowledge first and then students go to operate by hand. In this process, when teaching theoretical knowledge, students will feel boring and unwilling to study seriously and deeply. When they reach the stage of hands-on operation, they cannot master operational skills deeply due to lack of theoretical knowledge [2]. Therefore, the current traditional teaching method can no longer meet the teaching requirements of the industrial robot discipline. Project-based teaching is a teaching method that is student-centered and project-oriented. According to the teaching content, the teacher arranges corresponding projects for the students and sets multiple tasks in the project. the knowledge points and knowledge skills are organically integrated into the tasks. the student's learning process is no longer the traditional teaching of teachers and students accepting knowledge in a way that is instilled in them. Instead, they master one knowledge point by completing one task after another. Students complete tasks through background investigation, research discussion, data collection, group cooperation and hands-on operation. In the process of completing tasks, they are also learning relevant knowledge points. This teaching method can greatly stimulate students' enthusiasm for learning and their initiative is extremely high. It also cultivates students' multi-faceted abilities. In real life and work, problems encountered are often not solved by a simple knowledge point. It often requires the use of multi-faceted and multi-level cross-cutting knowledge points to solve problems. Students can better align with actual work requirements in school through project-based teaching to meet work needs.

2. OVERALL DESIGN OF COURSE CONTENT

2.1 ANALYSIS OF THE CURRENT SITUATION OF COURSE CONTENT

Industrial Robot Automatic Line Installation, Debugging and Maintenance is a professional core course that involves many related knowledge such as PLC, touch screen, servo motor, offline programming, industrial robot operation and maintenance [3]. Currently, the course content has the following problems:

First, the current course content emphasizes theoretical knowledge too much and ignores the cultivation of students' practical ability and innovation ability [4]. This can result in students having a strong understanding of theoretical concepts but lacking the practical skills needed to apply this knowledge in real-world situations. Additionally, without opportunities to engage in hands-on learning experiences, students may struggle to develop their innovation abilities.

Second, the course content is out of touch with production job requirements. This means that the knowledge and skills taught in the course may not be directly relevant to the tasks and responsibilities that

students will encounter in their future careers. As a result, students may struggle to transition from the classroom to the workplace and may require additional training to become fully competent in their roles.

2.2 OVERALL COURSE DESIGN

Based on the above problems, give full play to the teaching concept of "students as the main body and tasks as the carrier" [3], taking into account the industrial demand of the piston engine automation production line. the main processes of piston engine automation production are laser cutting, polishing and polishing technology, visual inspection, assembly and other four processes. Based on this, six modules with a total of 56 class hours are set up. the task design and class hour arrangement in each project module are as follows.

(1) Module 1: Design of Piston Engine Production Plan

Task 1: Understanding Piston Engine Products 1.5 class hours (Lecture 1.5)

Task 2: Planning the Production Steps of Piston Engines 6 class hours (Lecture 2.5/Practical Training 3)

Task 3: Overall Design of Piston Engine Production Equipment 1 class hour (Lecture 1)

(2) Module 2: Control System and Human-Machine Interface Design

Task 1: PLC System Selection and Design 1.5 class hours (Lecture 1.5)

Task 2: Planning and Design of Human-Machine Interaction Interface 6 class hours (Lecture 2.5/Practical Training 3)

(3) Module 3: Design and Application Cases of Laser Cutting Module

Task 1: Design of Laser Cutting Module 1 class hour (Lecture 1)

Task 2: Laser Cutting Piston Raw Materials 7.5 class hours (Lecture 3.5/Practical Training 4)

(4) Module 4: Design and Application Cases of Process Module

Task 1: Design of Process Module 0.5 class hours (Lecture 0.5)

Task 2: Deburring Process for Piston Parts 3 class hours (Lecture 1/Practical Training 2)

Task 3: Grinding Process for Piston Parts 2.5 class hours (Lecture 1/Practical Training 1.5)

Task 4: Polishing Process for Piston Parts 2 class hours (Lecture 1/Practical Training 1)

(5) Module 5: Design and Application Cases of Visual Inspection Module

Task 1: Design of Visual Inspection Module One Class Hour (Lecture One)

Task 2: Visual Inspection of Piston Parts Six and a Half Class Hours (Lecture Three/Practical Training Three and a Half) Task 3: Qualified Products Labeling Scanning into Storage Two and a Half Class Hours (Lecture One/Practical Training One and a Half)

(6) Module 6: Design and Application Cases of Assembly Module

Task 1: Design of Assembly Module Half a Class Hour (Lecture Half)

Task 2: Piston Component Assembly Seven Class Hours (Lecture Two and a Half/Practical Training Four and a Half) Task 3: Piston Engine Assembly Seven and a Half Class Hours (Lecture Three and a Half/Practical Training Four)

Overall, the course "Installation, Debugging and Maintenance of Industrial Robots on Automatic Lines" is divided into six modules. Each module focuses on a specific aspect of the production process for piston engines, including the design of the production plan, control system and human-machine interface, laser cutting, process design, visual inspection, and assembly. the course content is structured around a series of tasks that combine lectures and practical training to provide students with a comprehensive understanding of the subject matter.

3. PROJECT-BASED LEARNING IN THE COURSE

Project-based learning is a popular teaching method in Germany that allows students to achieve teaching goals by solving practical project problems [4]. This method actively adheres to the national initiative on the integration of production and education, and can effectively help students learn while doing and learn while doing, ultimately cultivating students into high-quality talents with solid theoretical foundations and strong practical abilities. the content design of this course adopts the project-based teaching method and makes it more efficient, mainly reflected in the following aspects:

(1) the arrangement of theoretical and practical training hours is appropriate. the production time of different processes is different. According to this characteristic, for different projects, the class hours are arranged to be equivalent to the working hours required in actual production, and according to the characteristics of the project and the knowledge level of the students, the proportion of teaching and practical training hours is reasonably arranged.

In order to better achieve this goal, we need to fully consider the actual needs of students in course design. This means that we need to understand the knowledge background and skill level of students and arrange course content and teaching methods based on this information. For example, for students with weak basic knowledge, we can increase the teaching hours of theory to help them better master basic knowledge; for students with higher skill levels, we can increase practical training hours to allow them to continuously improve their skill levels in practice. [5-6]

In addition, in practical training courses, we need to focus on the combination of practice and theory. This means that we not only need to provide students with sufficient practical opportunities but also guide students to use theoretical knowledge to solve practical problems in practice. For example, we can help students apply theoretical knowledge to practical work through case analysis and project discussion.

In summary, when arranging theoretical and practical training hours, we need to fully consider the actual needs of students and the characteristics of projects and reasonably arrange the proportion of teaching and practical training hours based on this information. In

this way, we can better help students master professional knowledge and skills and lay a solid foundation for their future employment.

(2) Fully exert the teaching philosophy of 'student as the main body, task as the carrier', integrate the knowledge, ability and skills required by the curriculum standards into the tasks, implement task-driven teaching, specify the duration of each task, and require students to complete the task and deliver within the specified time. While improving teaching efficiency, it also increases students' sense of accomplishment in learning.

The advantage of this teaching model is that it can better stimulate students' initiative and creativity. By integrating knowledge, ability and skills into specific tasks, students can continuously master new knowledge and improve their skill levels in the process of completing tasks. At the same time, since tasks have a certain time limit, students need to complete tasks and deliver within the specified time, which also helps to cultivate students' time management ability and sense of responsibility.

In addition, during the implementation of task-driven teaching, teachers also need to pay attention to adjusting teaching strategies. For example, teachers can provide tasks of different difficulty levels according to the actual situation of students and provide appropriate guidance and help. At the same time, teachers can also help students better complete tasks through organizing discussions and sharing experiences.

In summary, when implementing task-driven teaching, we need to fully exert the teaching philosophy of "student as the main body, task as the carrier" and adjust teaching strategies according to the actual situation of students. In this way, we can better stimulate students' initiative and creativity and help them master professional knowledge and skills.

(3) the project is realistic. Taking the piston engine automation production line as an example, the project is taken from a real production scenario. the tasks completed by the students are real engineering problems that exist in the enterprise and need to be researched and solved. This helps students keep up with the forefront of industrial development and does not disconnect the knowledge learned in school from actual production.

The advantage of this teaching model is that it can better help students apply theoretical knowledge to practical work. By allowing students to participate in real engineering projects, they can continuously master new knowledge and improve their skill levels in practice. At the same time, since the project is taken from a real production scenario, the tasks completed by the students also have strong practical significance, which also helps to cultivate students' sense of responsibility and professional spirit. [7]

In summary, when implementing this teaching model, we need to fully utilize the authenticity of the project and adjust teaching strategies according to the actual situation of students. In this way, we can better help students apply theoretical knowledge to practical work and cultivate their sense of responsibility and professional spirit.

(4) Task completion methods are diversified, with results as the guide. Since the result is no longer a single reference answer, students can freely play in the process of completing tasks and use different methods to achieve project goals. the advantage of this teaching model is that it can better stimulate students' creativity and imagination. [8] This process of free play helps to cultivate students'innovative ability and divergent thinking.

4. CONCLUSIONS

The course "Installation, Debugging and Maintenance of Industrial Robot Automatic Line" uses a project-based teaching approach. This method greatly enhances students' motivation and interest in learning. It also improves their ability to identify and solve problems. By working on projects that reflect real-world scenarios, students develop practical skills. This approach effectively integrates production and education, fostering the development of innovative and applied talents.

Future research could focus on further improving the effectiveness of project-based teaching in this course. For example, researchers could investigate the impact of different project designs on student learning outcomes. They could also explore ways to enhance collaboration and communication among students during the project work.

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Curriculum Reform of Specialist English Curriculum in Integrated Circuit Course

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Abstract: Specialist English curriculum of integrated circuit play a very important role in the integrated circuit course, which is closely related to students' career choice and employment, and is an important part of "applied" talents cultivation in colleges and universities. This paper will take the integrated circuit professional English courses as an example, briefly introduce the current situation of the integrated circuit specialist English curriculum, teaching forms and teaching effects. On this basis, the paper analyzes the problems existing in the current stage of integrated circuit specialist English, and points out the main causes of various problems. Meanwhile, some suggestions on the reform of integrated circuit English courses are given.
Keywords: Integrated Circuit, Professional English courses, Reform

1. INTRODUCTION

English teaching has always been a key part of our higher education. the Ministry of Education successively issued "Some Opinions on Further Strengthening the undergraduate teaching work in higher institutions and improving teaching quality" and "Opinions on the implementation of Undergraduate Teaching quality and teaching reform Project" related documents. the document repeatedly emphasizes that institutions of higher learning should focus on training students to use English ability in scientific research, accept advanced academic thoughts and concepts, and master cutting-edge knowledge and technology. [1] Specialist English courses take on the important task of combining general college English with professional skills. [2-4] Studies have shown that more recognition and efforts are needed in the teaching of professional English courses to truly play the role of "training students to use English ability for scientific research, accept advanced academic thoughts and concepts, and master cutting-edge knowledge and technology".

This paper will take the integrated circuit professional English courses as an example to analyze some ideas and suggestions on the reform of professional English courses. This paper firstly introduces the current situation of IC professional English. On this basis, this paper analyzes the existing problems of IC professional English at the present stage, and gives some suggestions for the reform of IC professional English curriculum.

2. THE CURRENT SITUATION OF INTEGRATED CIRCUIT PROFESSIONAL ENGLISH

As the senior students of higher vocational college group, they have learned vocational English and have a certain English foundation, but relatively weak; I have learned such professional courses as Fundamentals of Electrical engineering and Circuits, digital electronic technology, analog electronic technology, sensor technology, Fundamentals of Electrical engineering and circuits, and C language programming, and have gained a certain understanding and recognition of this major. However, most of the students do not have a solid grasp of professional theoretical knowledge, and they are still vague about the development direction of the electronic industry, the development trends of advanced technologies and the requirements of professional positions. In addition, students do not have the consciousness to take the initiative to deeply explore the industry trends and major construction by using the network resource media. the more important learning characteristic is that they like the practical operation training of the course, have little interest in researching relatively boring theoretical knowledge, and have little enthusiasm and initiative to deeply explore the technology. After the study of the first few units, students have already learned professional English

The course generated interest. According to the data of online teaching platform, the online guided learning before class and extended learning after class have good learning time and learning effect, showing a good upward trend. I actively participate in the interaction in class, and speak English bravely. I am willing to report group projects in class. From the analysis of learning situation data, it can be seen that as long as the content design of the course is reasonable and proper, the teaching form is effective, and the ideological and political elements of the course are properly integrated, students are willing to participate in learning, so as to gain more diversified cognition, broader knowledge system, and more noble character cultivation.

To cultivate the needs of compound talents, professional English courses are gradually developed in our country, cultivating a group of science and technology elites with a solid English foundation and deep professional knowledge, can serve science and technology, military and other related fields skillfully using English. At present, professional English courses mainly have the following characteristics:

In teaching content, the main teaching method of professional English courses is to make students understand the basic vocabulary through some common words in English. the content of the course is simple translation of words, which is not conducive to

stimulating innovative thinking of college students.

In position of the cultivation program, professional English courses are placed in the senior year of college (the year when students are least motivated to study) and even in elective courses in the overall training plan. the main purpose of the course is to balance the credit distribution of each semester in the four years of university, and the understanding of professional English courses is positioned on the illusion of "learning useless".

In the teaching form and teaching concept. At the present stage, the teaching of IC professional English courses is mainly through the simple translation of teaching materials. At the same time, students are urged to understand the difference between professional English and general college English and their relevance. However, in practical application, even the same professional terms have completely different meanings and understandings in different application situations, which need to be analyzed in combination with the contents of the previous and later articles.

3. PROBLEMS EXISTING IN INTEGRATED CIRCUIT PROFESSIONAL ENGLISH AT THE PRESENT STAGE

Through the above analysis, in order to truly achieve the national goal of training students to use English ability for scientific research, accept advanced academic thoughts and concepts, and master cutting-edge knowledge and technology, the following problems need to be solved in the current stage of IC professional English:

First of all, the training objectives of professional English courses are not clear, and the training model is unreasonable. the goal of professional English courses should be to cultivate high-quality interdisciplinary talents with solid basic skills, broad range of knowledge, some relevant professional knowledge and strong scientific research ability. However, the main functions of the current professional English courses are more focused on the balance of course credits and the increase of professional characteristics, which obviously goes against the original intention of professional English courses and is a problem that ordinary colleges and universities must face up to.

Secondly, the importance of professional English courses for subsequent students' career selection and employment has been ignored, and the position of professional English courses in the four-year training system of college students is too weak. For science and engineering colleges, professional English is the content that students must deal with in their further study or work. To cultivate international talents who are in line with international standards, we must balance the position of professional English courses in the curriculum system.

Finally, professional English and general college English do not connect enough, the span is large, the learning effect is greatly weakened. According to the input hypothesis theory of Krashen [5], language acquisition must have sufficient comprehensible input. At the present stage, general English teaching and professional English teaching are completely separated, irrelevant, no connection with each other, resulting in a great weakening of students' learning effect, which is also the current professional English curriculum reform needs to consider the problem.

4. SOME SUGGESTIONS ON THE CURRICULUM REFORM OF INTEGRATED CIRCUIT PROFESSIONAL ENGLISH

First of all, from the cultivation goal, fully consider the characteristics of IC major, revise the cultivation program of IC professional English courses, and straighten out the position of professional English courses in the four-year curriculum system of IC major undergraduates. Only by establishing the main position of professional English courses from the source, can we give a guidance to schools, teachers and students from the ideological perspective.

Secondly, relevant auxiliary courses should be set up to strengthen the connection between college general English courses and professional English courses, so as to achieve "targeted". Professional English courses require listening, speaking, reading and understanding skills developed in general English courses. On the other hand, professional English courses cannot completely copy the learning style of English courses because of their professional characteristics. Therefore, colleges and universities should make a comprehensive connection between general English courses and professional English courses through reasonable total class hours, class time, teaching content and other aspects.

Thirdly, the content of integrated circuit related professional English courses should be selected more specifically, and the teaching methods should be "individualized" and "immersive". Therefore, the selection of appropriate textbooks, the addition of the latest English materials related to the major, and the teaching through seminars, group learning and other ways can effectively improve students' interest in learning, as well as increase students' learning autonomy and self-management ability.

Finally, strengthen the construction of teachers. the strength of teachers is an important force for the development of the subject, but also the fundamental guarantee of teaching effect. the key to train students to use English ability for scientific research, accept advanced academic thoughts and concepts, and master cutting-edge knowledge and technology is to have a team of teachers with high-quality interdisciplinary talents.

5. CASE UNIT TEACHING IMPLEMENTATION OF INTEGRATED CIRCUIT

The case of "Integrated Circuit" takes "craftsman core manufacturing" as the unit theme, and carries out ideological and political education around the corresponding theme in the aspects of pre-class guidance, group project report in class, detailed translation, explanation of new knowledge, classroom practice, after-school training base visit and study.

Video resources, students watch before class, understand the advanced technology of China's integrated circuit and chip manufacturing, stimulate the confidence of science and technology, national confidence, but also see that China's current chip products still have a huge room for improvement, and there is a certain level gap with the world's advanced industries, stimulate students' ambition to serve the country by science and technology, ignite students' interest in learning this unit course. the group members made concerted efforts to collect and sort out materials, and completed the sharing and introduction of the group topic presentation.

Group project presentation and report: Each group of students shared the open homework "Introduce a chip used in the competition or in the product design" assigned before class, and presented and reported from the perspectives of function, performance, application scenario, price, advantages and disadvantages, cost performance, etc. the content shared this time is very consistent with the unit content. the content reported by each group is good material for learning, which broadens students' cognitive horizon. Improve students' information literacy ability, unity and cooperation ability, exercise students' logical thinking ability, bilingual communication and expression ability, and cultivate students' all-round and multi-angle view ability and expression ability.

It focuses on the development history of integrated circuit and chip, highlights the cultural confidence, cultural identity, technology confidence, and strong connotation of science and technology. When it explains Moore's Law and Moore's Law is challenged at the current stage, it leads to the law of quantitative change and qualitative change in philosophy, and the law of philosophical development of negation. For another example, when explaining the increasing complexity of large-scale integrated circuits, the design ability of engineers also needs to be improved, and the help of automatic design tools is needed to introduce Marx's theory of productivity and production relations. When explaining the qualities that integrated circuit design and development engineers need to possess, it introduces Huawei engineers' independent research and development of compiler and Cangjie programming language, and inspires students to actively innovate, dare to explore, dare to break through, and enhance national confidence.

Classroom exercises: the questions are infused with ideological and political elements of the course, such as current political news, celebrity stories, professional quality requirements, etc. In the process of answering questions, students are cultivated to have a sense of responsibility and a serious and careful character. By analyzing the answer data of students, in-depth review teaching is conducted to evaluate the teaching situation of students, so as to find out and fill in the gaps.

Study on school-enterprise cooperation base: After class, I led the class to visit the training base of school-enterprise cooperation, listened to the enterprise engineers explain the basic operating principles to be observed in the actual development of chips, listened to them explain how to find the breakthrough point and overcome the difficulties encountered in the design of chips, and provided practical exercises for students to practice, combining theory with practice. Practice the philosophy that "practice is the only criterion for testing truth", but also improve students' practical operation ability, improve professional quality.

After class extension: Make use of network resources to learn about 25 classic chips in history and policies related to the semiconductor industry, such as the Outline of National Integrated Circuit Industry Development, enter relevant recruitment websites to understand the technical and literacy requirements of chip engineering design and R&D engineers and other related positions, learn by reference, reflect on yourself, find out the shortcomings, and constantly improve myself. Close the gap.

6. CONCLUSIONS

This paper, starting from the professional English courses of integrated circuit major, discusses in detail the various development status of integrated circuit professional English courses with the characteristics of the Times, and on this basis, gives the major English courses in the curriculum, teaching forms, teaching effects and teachers and other aspects of the main problems. In view of the problems emerging at the present stage, this paper gives some feasible suggestions on the curriculum reform of integrated circuit professional English. We believe that professional English courses will achieve the goal of "cultivating high-quality interdisciplinary talents who use English ability to conduct scientific research, accept advanced academic thoughts and concepts, and master cutting-edge knowledge and technology".

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Promoting Student Participation and Learning Motivation in the Study of Artificial Intelligence

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Abstract: Engaging students and fostering their motivation in the study of artificial intelligence (AI) courses is crucial for effective learning outcomes. However, many challenges exist, particularly when teaching AI to students with limited foundational knowledge. This paper explores strategies and best practices for enhancing student engagement and motivation in AI education. Drawing upon relevant theoretical frameworks and considering the unique characteristics of AI education, this research investigates the factors influencing student engagement and motivation in computer science programs. Various instructional approaches, including practical projects, case studies, and personalized learning techniques, are examined to promote active participation and intrinsic motivation. Furthermore, the integration of gamification elements and the use of technology tools to enhance engagement in AI courses are explored. the paper also discusses the importance of continuous assessment and feedback to maintain student motivation and improve learning outcomes. Through case studies and best practices, this study provides insights into successful implementations of strategies in AI education. Finally, the research highlights the need for further exploration and research to continuously improve student engagement and motivation in the ever-evolving field of artificial intelligence.

Keywords: Artificial Intelligence Education, Student Engagement, Learning Motivation.

1. BACKGROUND

Artificial intelligence (AI) has emerged as a transformative field, revolutionizing various industries and aspects of our daily lives. As AI continues to advance, the demand for professionals with expertise in this domain has escalated. To meet this demand, educational institutions are offering courses in AI, aiming to equip students with the necessary knowledge and skills to excel in this rapidly evolving field.

However, teaching AI courses to students with limited foundational knowledge can present challenges. Many students in vocational colleges may lack prior exposure to advanced computational concepts and principles, making it difficult for them to fully comprehend the intricacies of AI. Consequently, engaging these students and fostering their motivation in AI education becomes paramount to ensure effective learning outcomes.

Enhancing student engagement and motivation in AI education is crucial for several reasons. Firstly, active participation and motivation are key drivers of effective learning and knowledge retention. When students are engaged and motivated, they are more likely to invest time and effort into their studies, resulting in a deeper understanding of AI concepts. Additionally, increased engagement can cultivate critical thinking, problem-solving skills, and creativity – qualities essential for success in the field of AI.

Furthermore, given the rapid advancements in AI, it is imperative for students to maintain a high level of motivation and adaptability. the field evolves at a remarkable pace, with new algorithms, techniques, and applications emerging regularly. By fostering student engagement and motivation, educators can instill a lifelong learning mindset, enabling students to keep pace with advancements and remain competitive in the AI job market.

This paper aims to explore strategies and best practices for enhancing student engagement and motivation in AI education. By addressing the unique challenges faced by vocational college students and drawing upon relevant theories and practical examples, this research seeks to provide valuable insights and guidance to educators in designing effective AI courses.

2. CHALLENGES IN AI EDUCATION AND STUDENT MOTIVATION

The field of artificial intelligence (AI) poses unique challenges for educators when it comes to engaging students and fostering their motivation. These challenges can impact student learning outcomes and their overall interest in pursuing AI-related careers. Understanding these challenges is crucial for designing effective instructional strategies. the following are key challenges in AI education and their implications for student motivation:

2.1 LIMITED FOUNDATIONAL KNOWLEDGE

Many students entering AI courses in vocational colleges may lack a solid foundation in computer science and mathematics. [1] the complex nature of AI concepts and algorithms can be overwhelming for these students, leading to feelings of frustration and disengagement. To address this challenge, instructors must provide additional support, introductory materials, and review sessions to bridge the knowledge gap and build students' confidence in tackling AI-related topics.

2.2 COMPLEX CONCEPTS AND RAPID ADVANCEMENTS

AI encompasses a wide range of complex concepts, including machine learning, neural networks, natural

language processing, and deep learning. These concepts often require abstract and technical understanding, making them challenging for students to grasp. Moreover, the rapid advancements in AI technologies and techniques can create a sense of overwhelm among students, as they need to keep pace with the latest developments. Educators must break down complex concepts into manageable chunks, provide real-world examples, and highlight the practical applications of AI to enhance student comprehension and motivation.

2.3 PRACTICAL APPLICATION AND IMPLEMENTATION

AI is an applied field that heavily relies on hands-on practice and experimentation. However, students may face difficulties in applying theoretical knowledge to practical scenarios. Lack of access to AI development platforms, datasets, and computing resources can hinder their ability to engage in meaningful project work. Educators should strive to create opportunities for students to work on AI projects, collaborate in teams, and gain practical experience through real-world case studies and industry partnerships.

2.4 ETHICAL AND SOCIETAL IMPLICATIONS

The ethical considerations and societal impact of AI are becoming increasingly important topics of discussion. Students need to understand the potential biases, privacy concerns, and ethical dilemmas associated with AI technologies. These complex issues can be intellectually stimulating, but they can also raise concerns and lower motivation if not addressed properly. Incorporating discussions and assignments that explore the ethical dimensions of AI can help students develop a broader perspective and maintain their motivation by understanding the societal relevance of their studies.

By recognizing and addressing these challenges, educators can create an inclusive and supportive learning environment that encourages student engagement and motivation in AI education. In the following sections, we will explore strategies and best practices to overcome these challenges and foster active learning and motivation in AI courses.

3. STRATEGIES FOR ENHANCING STUDENT ENGAGEMENT AND MOTIVATION IN AI COURSES

To address the challenges faced by students in AI education and foster their engagement and motivation, educators can employ various effective strategies. These strategies are designed to create a dynamic and interactive learning environment that promotes active participation and intrinsic motivation. the following are key strategies that can enhance student engagement and motivation in AI courses:

3.1 PRACTICAL PROJECTS AND CASE STUDIES

Implementing hands-on projects and real-world case studies is a powerful way to engage students in AI courses. By working on practical applications of AI, students can see the direct impact of their knowledge and skills. Assigning projects that involve data analysis, machine learning models, or natural language processing tasks allows students to apply theoretical concepts to solve meaningful problems. These projects can be individual or collaborative, encouraging teamwork and fostering a sense of accomplishment.

3.2 PERSONALIZED LEARNING TECHNIQUES

Recognizing that students have different learning preferences and levels of understanding, educators can implement personalized learning techniques. This can include providing additional resources, tutorials, or supplementary materials tailored to individual student needs. Offering flexible learning paths that allow students to explore topics at their own pace can also enhance engagement and motivation. Adaptive learning platforms and intelligent tutoring systems can assist in delivering personalized learning experiences and tracking student progress.

3.3 ACTIVE LEARNING STRATEGIES

Active learning approaches, such as flipped classrooms, group discussions, and peer teaching, can significantly enhance student engagement in AI courses. Encouraging students to actively participate in class through discussions, problem-solving activities, and hands-on exercises promotes deeper understanding and critical thinking. Instructors can facilitate interactive sessions where students can share their insights, ask questions, and collaborate on solving AI-related challenges. Providing opportunities for students to present their work or lead class discussions can also boost their confidence and motivation.

3.4 INCORPORATING REAL-WORLD EXAMPLES AND APPLICATIONS

Relating AI concepts to real-world examples and applications can make the subject matter more tangible and relatable for students. Showcasing how AI is utilized in diverse fields such as healthcare, finance, and autonomous systems can spark students' interest and highlight the relevance of their studies. Inviting guest speakers from industry or organizing field visits to AI companies can provide valuable insights into the practical applications of AI, inspiring students and giving them a glimpse of potential career paths. [2]

3.5 CREATING A SUPPORTIVE LEARNING ENVIRONMENT

Establishing a supportive and inclusive learning environment is essential for student engagement and motivation. Encouraging open communication, active participation, and respect among students fosters a sense of belonging and motivation. Instructors can provide regular feedback, guidance, and mentorship to help students navigate challenges and progress in their AI learning journey. Creating opportunities for peer collaboration, group projects, and study groups can also cultivate a supportive community of learners.

By implementing these strategies, educators can create an enriching learning experience that promotes student engagement, motivation, and deep understanding of AI concepts. the next section will explore the integration of technology tools and gamification techniques to further enhance student engagement in AI courses.

4. INTEGRATION OF TECHNOLOGY TOOLS AND GAMIFICATION IN AI COURSES

Incorporating technology tools and gamification techniques can significantly enhance student engagement and motivation in AI courses. By leveraging the power of interactive platforms and gamified elements, educators can create immersive learning experiences that captivate students' interest and promote active participation. the following strategies showcase how technology tools and gamification can be effectively integrated into AI courses:

4.1 VIRTUAL LABS AND ONLINE PROGRAMMING ENVIRONMENTS

Virtual labs and online programming environments provide students with hands-on experience in AI without the need for extensive hardware resources. [3] These platforms offer a simulated environment where students can experiment, build AI models, and test algorithms. By providing access to virtual labs, educators enable students to engage in practical activities, refine their skills, and gain confidence in working with AI tools and frameworks.

4.2 AI SIMULATION PLATFORMS

AI simulation platforms allow students to explore AI concepts and algorithms in a visually interactive manner. These platforms offer simulations of real-world scenarios, enabling students to experiment with AI models and observe their outcomes. Students can gain a deeper understanding of AI principles by interacting with virtual agents, exploring data-driven decision-making, and experiencing AI applications firsthand. [4]

4.3 GAMIFICATION ELEMENTS

Gamification involves incorporating game-like elements, such as points, badges, leaderboards, and challenges, into the learning process. Applying gamification techniques in AI courses can enhance student motivation and engagement. For example, educators can design AI-related challenges or competitions that encourage students to solve problems, achieve milestones, and earn rewards. By making learning enjoyable and competitive, gamification fosters a sense of achievement and encourages students to actively participate and invest in their AI studies.

4.4 INTERACTIVE MULTIMEDIA RESOURCES

The integration of interactive multimedia resources, such as videos, tutorials, and interactive simulations, can enhance student engagement in AI courses. [5] These resources provide visual and auditory stimuli that cater to different learning styles, making complex AI concepts more accessible and engaging. Educators can curate and create multimedia content that explains AI algorithms, demonstrates practical applications, and showcases real-world examples, thereby stimulating students' interest and deepening their understanding.

4.5 COLLABORATIVE ONLINE PLATFORMS

Collaborative online platforms, such as discussion forums, online communities, and social learning networks, facilitate student interaction and knowledge sharing. These platforms allow students to collaborate, ask questions, and exchange ideas beyond the confines of the classroom. By participating in online discussions and sharing resources, students can learn from their peers, gain different perspectives, and build a supportive learning community.

Integrating technology tools and gamification techniques in AI courses not only enhances student engagement and motivation but also reflects the evolving nature of the field. These tools provide students with practical experiences, foster creativity, and instill a sense of excitement and curiosity. However, it is crucial for educators to carefully select and integrate these tools, ensuring they align with course objectives and promote meaningful learning experiences.

The next section will discuss the importance of continuous assessment and feedback in AI education, highlighting their role in maintaining student motivation and improving learning outcomes.

5. ASSESSMENT AND FEEDBACK IN AI EDUCATION

Assessment plays a crucial role in evaluating student understanding and progress in AI courses. It provides valuable feedback to both students and educators, guiding the learning process and facilitating improvement. In the context of student engagement and motivation, effective assessment and feedback practices are essential for maintaining student motivation and enhancing learning outcomes. the following strategies highlight the significance of assessment and feedback in AI education:

5.1 FORMATIVE ASSESSMENT

Formative assessment involves ongoing evaluation of student learning throughout the course. [6] It provides valuable feedback that helps students identify their strengths and areas for improvement. In AI courses, formative assessment can include quizzes, coding exercises, group discussions, and regular progress checks. By providing timely feedback on student performance, instructors can address misconceptions, offer guidance, and encourage students to actively engage with the course material.

5.2 SUMMATIVE ASSESSMENT

Summative assessment evaluates student learning outcomes at the end of a course or module. It provides a comprehensive overview of students' knowledge and skills in AI. Summative assessments in AI courses can include exams, project presentations, and portfolio evaluations. By incorporating a variety of assessment methods, instructors can assess students' understanding of AI concepts, their ability to apply algorithms, and their critical thinking skills. [7]

5.3 FEEDBACK STRATEGIES

Providing constructive feedback is essential for student motivation and growth in AI education. Feedback should be timely, specific, and actionable, focusing on both strengths and areas for improvement. Instructors can provide feedback on assignments, projects, and exams, highlighting areas where students excel and offering suggestions for enhancement. Additionally, educators can encourage peer feedback and self-reflection, enabling students to assess their own progress and engage in metacognitive thinking.

5.4 CONTINUOUS IMPROVEMENT AND ADAPTATION

Assessments and feedback not only benefit students but also inform instructors about the effectiveness of their teaching methods. Educators can use assessment data to identify patterns, modify instructional strategies, and adapt the course content to better meet students' needs. Regular review of assessment results allows instructors to make informed decisions about adjustments to the curriculum, pacing, and instructional approaches to enhance student engagement and motivation.

By implementing effective assessment practices and providing meaningful feedback, educators can foster a supportive learning environment that encourages student engagement, self-reflection, and continuous improvement. the next section will provide a summary and conclusion, highlighting the key findings and future directions for enhancing student engagement and motivation in AI courses. [8]

6. SUMMARY AND CONCLUSION

This paper examined the challenges in AI education and the importance of enhancing student engagement and motivation in vocational college settings. Strategies such as practical projects, personalized learning, active learning, real-world examples, and creating a supportive environment were presented to address these challenges. Integration of technology tools and gamification techniques can enhance engagement. Assessment and feedback play a crucial role in guiding student learning. By adopting these approaches, educators can empower students to develop a deep understanding of AI concepts and skills.

In conclusion, enhancing student engagement and motivation in AI courses is vital for effective learning. It prepares students to excel in the field and contribute to its transformative impact on society. Continued research can explore the effectiveness of specific strategies and the impact of emerging technologies. By adopting a holistic approach to AI education, we can shape a new generation of skilled AI professionals.

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Enterprise Management in Australia and strategic IT

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Abstract: In the new development pattern of dual circulation, the development of enterprises has ushered in new opportunities and challenges, which puts forward higher requirements for enterprise's standardized management and application. Combined with the requirements of the new development pattern of dual circulation, this paper introduces the necessity of standardization for enterprises and the analysis of its application in enterprises, and summarizes and thinks about the standardization work of enterprises.
Keywords: Dual circulation, Standardization, Enterprises.

1. SUMMARY OF THE TECHNOLOGY IN PAST, PRESENT AND FUTURE

To show the concept of customer experience in the past it is enough to consider the situation when the customer need to go shopping (grocery, clothes, shoes, etc.), say, 10 years ago. the main difference of customer experience 10 years from now is that shopping happened in the physical world. the customer needed to walked into an actual store and talked with real people to confirm if that particular store has that particular piece of clothes. the big part of the customer experience in the past depended upon the qualification, training, education and the most important in my opinion personality of sales person. For some people this kind of physical interaction is kind of a high pressure test. A customer needed to update a salesperson with a current situation, provide with some sort of content and after that there is a high probability that they were going to upsell a customer. [1] Despite of the negative side of customer experience in the past, there were a positive side, people could socialize more, read body language or make eye contact. When it done right, it was possible to create powerful emotional bridge between a customer and a company. To sum up, the customer experience in the past can be described as a human interaction with all the warmth, slovenliness and inconsistency that implies. [2]

Omni-channel customer experience along with the internet, social media and smartphones create a broad options for customers. It does not matter what exactly a customer wants to buy, everything is under fingertips. Based on online reviews, a customer can make a quick decision about purchase. Almost every customer read articles, review existing comments in Facebook and expert advices before purchasing. It is easy to check which store has that particular type of phone or pair of shoes and check if a store has your size. Websites and various tools are able to track all products and services in which you show interest and build a profile of you. It also allows to predict what else you might like and one of a positive sides of customer experience in the present is anonymity so there is no more awkward situation with another human being. Once a customer decide what exactly he/she wants to buy, it can be delivered in 2 days or it is possible to pick up it in the nearest store. To summarize, present customer experience is quite personalized and very convenient. However, some companies are forgetting that their competitors can use customer relationships as a precious competitive advantage. [3]

Future:

Every few years business philosophy is changing. Based on major technology analysts such as Gartner, Forrester Research or ISG, the future of customer experience will move from customer loyalty to customer behaviour predictions and consumer expectations (Iliff, 2018).

Predictive Analytics:

According to Aberdeen Group, companies that start to use predictive analytics now will be twice as likely to generate year-over-year customer lifetime value, which they defines an the constant customer satisfaction and expectations. When a company is able to know what its customers want, it can use proactive actions to keep them satisfied instead of constantly waiting for respond to complaints and shifting attitudes.

Personalization is top priority:

Personalization and the customer experience are inseparably linked. In the present, we believe that personalization significantly improve customer experience. As a consequence, it creates a customer loyalty and turn to higher customer lifetime value. Personalization is not just about sending product recommendations and some content to a customer. Based on Gather, it is primarily about when and how a company engages with its customers, ensuring that each client feels welcomed rather than intrusive. In future companies should provide with experience that are related to their individual wants and needs. According to the commercial director of Kantar TNS, a customer will expect relevant and timely promotions, services, or products based on their personalized data. In short, customers will expect brands to know them very well (Newman, 2018).

Artificial intelligence:

IBM report presents that by 2020, around 45% of digital transformation initiatives will be supported by cognitive computing. They also predict that by 2025, 95% of customer interactions will be powered by AI (Shulzhenko, 2018). Moreover, Gather proposed that 85%

of customer interactions will take place without human by 2020. Based on Juniper Research, chat bot conversations will save of over $8 billion for companies per year by 2022. By using AI, companies will be able to improve response time, provide personalized offers and recommendations, dealing with more complex issues and so on. Via voice, video and text sentiment analysis can understand emotion and sentiment in different kind of communications (Rajeck, 2018). These types of technology will help to understand how to manage communications, identify customer satisfaction and act quicker if a customer is not satisfied with products of services.

2. HOW AN ORGANISATION IS SUCCESSFULLY USING THIS TECHNOLOGY TO GAIN A STRATEGIC ADVANTAGE.

Sephora is one of the leading company in the market of cosmetics, skincare, makeup, body care and so on. Sephora sells its products via around 1, 750 retail stores in more than 30 countries in the World and via the Internet (Li, 2018).

2.1 MOBILE APPLICATION

The customer experience in almost all store is heavily supported by various technologies. Sephora tracks customer's location via app to provide relevant and accurate marketing campaign and another useful information from a store map to good deals. Sephora always knows when a customer enters their store to provide with the best customer experience (Alcántara, 2018).

Sales persons in store use iPads to show clients hundreds of shades and various styles to find the perfect match for the client. Virtual Artist application allows to try on app Sephora's luxury products and all others including lipsticks, eyeshadows and lashes digitally. By using Virtual Artist application, Sephora is able to solve customer needs and brings elements of fun in customer experience (Aaker, 2018).

In case if that particular store does not have a particular product, salesperson is able to order it immediately and deliver it directly to the customer's home.

2.2 DIGITAL MAKEUP GUIDE

Many Sephora's customers like to ask some assistance with makeover from sales people in store. When a customer comes to a store for a makeover, the team member is able to scan all the products, and provides information about how it was used. the customer can go back in the app in any convenient time and find these products. Another good feature is that this Digital Guide includes customer's phots before and after makeup along with video tutorials (Forte, 2018).

Once shopping is done, Sephora continues to engage customers with its brand via app via various video tutorials, latest trends and news. So, it allows to keep Sephora top of customer's mind every day.

Almost each Sephora store has small device when held to the face, scan it and capturing customer's skin tone and matching it with all possible shades and styles from existing library (Burkard, 2018). This devise developed in 2012 to help shoppers to find the perfect shades for each particular type of skin. Since this winter, they also introduce the Lip IQ devise to find a perfect match for lipstick shades. By using such technologies, Sephora is able to provide a perfect customer experience and offers each customer most appropriate shades among thousands of shaded out there.

A customer can obtain skin type in store for free and use it online or mobile to sort products and minimise the selection.

2.3 THE BEAUTY COMMUNITY

Via browser or Sephora's mobile application, existing customers can connect with each other and share some beauty needs, ideas and all favourite products (Pandolph, 2018). the beauty Community includes various groups depend on the particular customers' interests for example 'Long hair' or 'eyeshadows lovers' Live community chat allows to get quick solution to client's issues and needs, and get instant feedback.

All of above technologies allow Sephora to create repeatable, memorable and teachable customer experience. Beauty market is very competitive market. However, Sephora is able to offer each customer the best possible experience even it has more than 20 million customers around the world. Sephora is trying to build an emotional relationships with customers and as a consequences it allows to create long term loyal relationships (Forte, 2018).

3. STRATEGIC IT IN BUPA GROUP

Bupa Group is one of the leading international healthcare companies that provides health and care services to more than 32 million insurance customers in more than 190 countries around the world.

According to Accenture Strategy Report, 72% of customers of insurance companies are unsatisfied with their current health providers (Tipakiv, 2018). Moreover, based on this report, only 1 in 6 customers would purchase other services from their current providers. As can be clear seen that that there is overall negative trend in insurance industry and lower cross-sell and up-sell opportunities. So, in this highly competitive market, insurance companies should provide the best possible customer services to each customer. By providing good customer experience will allow Bupa to reduce the risk of customer service mishaps. It will allow to distinguish their brands. the below, I provided the solution for pain points of Bupa in customer interaction:

Customer service request:

3.1 SOLUTION OF CUSTOMER SPENDS TOO MUCH TIME TO ANSWER SECURITY QUESTIONS OVER THE PHONE

By implementation of speech analytics system, Bupa will have various advantages like call quick interaction management so no need to ask many questions to confirm that this is Bupa's client, keyword tracking so a client can be redirected to the right team member and automatic transcription of customer conversations to avoid the same problems in the future customer interactions (Li2018). These conversations can be monitored for data capture based on positive or negative sentiments, business intelligence or customer preference.

Speech analytics will allow Bupa to identify the strengths and weaknesses of a business or brand in whole via customer feedback to get opportunity for better sales, customer service and as a consequence of higher ROI.

3.2 SOLUTION OF PAPER FORMS (NEED TO SEND CLAIMS VIA POST)

Bupa will get benefits if they design mobile application more customer friendly. Customers should be able to ask questions from any platform, not only via call centre. Bupa can improve customer service if they implement report a claim function with possibility to send photo or video without needed to make physical movement to the nearest branch every incident.

For customers who uses health insurance, Bupa can introduces apps for activities such as exercise tracking or food intake. the automation of Bupa mobile app will allow to get a competitive advantage among competitors. According to my research on insurance costs, the price is quite similar from one insurance company to another, so customer experience is essential for Bupa.

Difficult to identify marketing methods that work best with customers.

Staff spend too much time to analyse data and compile reports via social media. To analyse data, staff spends much time to identify current trends and customer behaviour.

With implementation of Salesforce Marketing Cloud, Bupa will do business more efficient and accurate. Sales people will be able to track sales and customer behaviour at each individual stage. It will allow for a quick analysis and adjustment of the sale strategy, depending on the information received (Poddar, 2017). Salesforce marketing cloud solution includes various functions for managing interactions with customers through different marketing channels including e-mail, mobile devices, web-services and social media networks. the functional tools will allow Bupa to manage marketing campaigns, advertising channels, create content, conduct analysis of marketing data. Social Media Marketing is a tool for implementing a marketing strategy. With its help Bupa will be able to interact with social media channels and analyse their work, deal with content marketing, manage the involvement of users of social networks.

The difference between poor and great customer service is very clear, and businesses on the wrong side of this trend usually pay a high price by losing customers and as a consequence losing money. By providing a strong and customer centric customer experience, Bupa will be able to get strategic benefits in insurance market.

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Construction of the Curriculum System for Industrial Robot Technology Specialty

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Abstract: Based on the post-course-competition-certificate vocational education system and combined with the 1+X vocational skill level certificate, this paper explores a suitable curriculum system construction plan for the industrial robot technology major. the goal is to promote comprehensive education in vocational education and cultivate high-quality vocational skilled talents. This approach could provide students with a well-rounded education that combines theoretical knowledge with practical skills. By fostering the development of high-quality vocational skilled talents, this approach could help meet the needs of industry and support economic growth.
Keywords: Post-course-competition-certificate, 1+X certificate, Modular teaching, Industrial robot technology major.

1. INTRODUCTION

Post-course-competition-certificate is a new type of vocational education system that integrates post, teaching, competition, and certificate. At the National Vocational Education Conference held in 2021, it was proposed to design a vocational education system in an integrated manner, deepen the 'three teachings' reform, comprehensively educate people with 'post, course, competition, and certificate', and improve the quality of education.

Vocational education is an essential part of the national education system. Through teaching, students's theoretical knowledge and comprehensive quality are improved. However, when students move from campus to society and from the classroom to professional positions, whether the knowledge learned in school can improve their professional literacy and adapt to job requirements is a common problem faced in the education process [1]. To this end, various countries have introduced vocational education models that are adapted to their national conditions and educational environment to solve this problem.

The post-course-competition-certificate system represents an innovative approach to addressing this challenge. By integrating post, teaching, competition, and certificate into a single system, it may be possible to provide students with a more comprehensive and effective vocational education. This approach could help students develop the knowledge and skills they need to succeed in their chosen careers.

2. IMPLEMENTATION STATUS OF VOCATIONAL EDUCATION MODELS AT HOME AND ABROAD

2.1 GERMANY'S 'DUAL SYSTEM'VOCATIONAL EDUCATION MODEL

After World War II, Germany was hit hard in all aspects and its economy fell into a trough. At this time, in order to revitalize the economy and solve the many problems faced after World War II, Germany introduced the "dual system" education model and received strong support from the government. Since then, the dual system education model has played an important role in the development of Germany. the dual system means that students must receive training from two aspects. They not only learn public courses and professional courses in school but also learn professional skills in enterprises or related training institutions to improve their professional literacy. In this way, students have a dual identity, one is a student enrolled in school, and the other is an apprentice worker in an enterprise. In Germany, nearly 70% of young people receive education under the "dual system" vocational education model every year [2].

The dual system vocational education model has narrowed the gap between students at different levels of education in Germany and provided more internship opportunities for young people aged 15-20. It has better bridged the transition between school and post and helped students better and faster, to take up work positions.

2.2'MADE IN CHINA 2025'STRATEGY

Manufacturing is the main body of the national economy and the foundation of a country. It is the foundation of national stability and economic prosperity. Without a strong manufacturing industry, there will be no prosperity of the country and nation. 'Made in China 2025'was issued by the State Council in May 2015 and was formulated by more than 100 academicians and experts from various industries. It is the top-level design and roadmap for China's manufacturing industry to plan for the next 10 years. the goal is to achieve China's manufacturing through efforts. To create, China's speed to China's quality, China's products to China's brand three major changes [3], to promote China to basically achieve industrialization by 2025 and enter the ranks of manufacturing powers.

On December 28th, the Ministry of Industry and Information Technology and other departments issued the'14th Five-Year Plan for the Development of Intelligent Manufacturing'and the '14th Five-Year Plan for the Development of the Robot Industry'. the 'Intelligent Manufacturing Plan'proposes that by 2025, most large-scale manufacturing enterprises will achieve digitalization and networking, and key industry backbone enterprises will initially apply intelligence; by 2035, digitalization and networking will be fully

popularized among large-scale manufacturing enterprises, and key industry backbone enterprises will basically achieve intelligence. the 'Robot Plan' proposes that by 2025, China will become a global source of innovation in robot technology [4], a high-end manufacturing cluster, and a new highland for integrated applications. the annual growth rate of robot industry operating income will exceed 20%, and the robot density in manufacturing will double.

3. OVERALL DESIGN OF THE PROFESSIONAL CURRICULUM SYSTEM

With the complex and changing international situation and the challenge of the epidemic, the complementary and mutual assistance of the regional intelligent manufacturing supply chain reconstruction in China and even the Asia-Pacific region will bring a lot of opportunities to China's manufacturing industry. In this context, how to use the 'post-course-competition-certificate' vocational education system to build a curriculum system for industrial robot majors to better train skilled and innovative talents for the robot industry has the following design points.

Firstly, we need to understand the basic principles of the 'post-course-competition-certificate' vocational education system. This education system aims to provide students with comprehensive and systematic vocational skills training by combining job requirements, course settings, competition activities, and certificate assessments. In this way, students can continuously improve their skill levels in practice and obtain industry-recognized certificates, laying a solid foundation for future employment.

Secondly, when establishing the curriculum system for industrial robot majors, we need to fully consider industry needs and development trends. This means that we need to work closely with industry enterprises to understand their talent needs and set course content based on these needs. In addition, we also need to pay attention to industry development trends and continuously update course content to ensure that the knowledge and skills learned by students can meet the needs of industry development.

In addition, in terms of course setting, we need to focus on the combination of theory and practice. This means that we not only need to provide students with solid theoretical knowledge but also provide them with sufficient practical opportunities. For example, we can let students apply their knowledge in a real work environment and continuously improve their skill levels in practice through school-enterprise cooperation, internships and training.

In summary, when establishing the curriculum system for industrial robot majors, we need to fully utilize the advantages of the 'post-course-competition-certificate'vocational education system, combine industry needs and development trends, focus on the combination of theory and practice, and train skilled and innovative talents for the robot industry. Therefore, based on the above design and combined with the actual characteristics of the course, the following practices can be adopted:

3.1 STRENGTHEN SCHOOL-ENTERPRISE COOPERATION

In terms of 'post'in industrial robot technology major, it mainly faces the operation post, operation and maintenance post, technical application post, and technical integration post of industrial robot positions. the core requirement for competent positions is the operation and maintenance and fault diagnosis and processing capabilities of industrial robot equipment.

In view of this characteristic, strengthen cooperation with enterprises. In the talent training system, add an enterprise internship link to encourage students to participate in enterprise internships. Not only can it exercise students' professional practical ability, but it can also deepen students'understanding and perception of the industrial robot industry during the practice process and improve students'comprehensive professional literacy. Co-build an industry-integrated practice base with enterprises. During the period when students are attending classes in school, each semester arranges job experience in the practice base. In this way, on the basis of learning different courses each semester, students can have different experiences in the process of participating in job work in the practice base. At the same time, the experience and perception of participating in job practice in the practice base will also affect students' daily class process. Through participation in job practice in the practice base, they can have different understandings of theoretical teaching and practical teaching [5].

3.2 OPTIMIZE CURRICULUM SYSTEM CONSTRUCTION

As the implementation core of 'post-competition-certificate', 'course' is an essential part of vocational education. To improve the construction of the 'post-course-competition-certificate'curriculum system, we must organically integrate courses with posts, courses with competitions, courses with certificates, develop task-oriented modular courses, emphasize 'teaching-learning-doing'as a whole in teaching process, cultivate students who can meet enterprise requirements and meet job requirements. Students must achieve their goals when they graduate and immediately take up work positions.

According to the 'two-one-three'engineering talent training model, 'two'refers to two jobs: operation and maintenance jobs for industrial robot equipment and systems; 'one' refers to one main line: training for industrial robot technology capabilities; 'three' refers to three combinations: combination of industrial robot vocational ability and comprehensive quality, combination of production practice and virtual simulation, combination of internship and post. On the premise of combining job requirements, vocational skills competitions, 1+X certificates, set up industrial robot technology major courses: industrial robot basics, industrial robot on-site programming, industrial robot offline programming, industrial robot operation and

maintenance, Industrial robot system integration, programmable control technology, industrial control network and configuration.

3.3 COMBINING COMPETITION TRAINING TO HELP IMPROVE SKILLS

At present, our school participates in related skill competitions for industrial robot technology majors: industrial robot technology application and industrial robot system integration. On the basis of fully studying the competition outline task book, integrate competition content into curriculum system construction and daily teaching to improve students' basic vocational ability in industrial robots and enhance students'interest in industrial robots. For example, corresponding to the competition item of industrial robot system integration, a related course 'Industrial Robot System Integration' has been set up. the competition task is decomposed into project-based teaching. At the same time, each module sets five major sections: task objectives, task guidance, Task implementation, skill assessment, extended knowledge, each task has corresponding assessment requirements and scoring standards, record the skill assessment process, focus on improving students' industrial robot skills in extended knowledge section, implement echelon teaching, through this course Learning, at the end of course skill assessment, students should be able to reach a level that meets competition requirements.

3.4 CERTIFICATE ASSESSMENT VERIFIES RESULTS

Fully integrate vocational skills and vocational skill level standards into professional teaching standards, implement talent training program reform, through modular teaching methods, integrate vocational skill level certificates with professional courses, establish course assessment evaluation consistent with vocational skill level assessment. At present, our school implements 1+X vocational skill level certificates for industrial robots: Industrial Robot Operation & Maintenance, Industrial Robot Application Programming, Industrial Robot Integration Application, with a pass rate exceeding 90%. This also proves that our school has achieved good results in implementing 'post-course-competition-c-
ertificate'education system integration with curriculum construction.

4. CONCLUSIONS

Post-Course-Competition-Certificate as a new type of vocational education system. Through school-enterprise cooperation, modular teaching, integration of competitions, and certificate assessment, students can receive comprehensive vocational education, improve their professional technical abilities, and enhance their competitiveness in the job market.

Future research could focus on further developing and refining the Post-Course-Competition-Certificate system. For example, researchers could investigate the effectiveness of different types of school-enterprise cooperation and modular teaching approaches. They could also explore ways to enhance the integration of competitions and certificate assessments into the vocational education curriculum. By conducting such research, it may be possible to further improve the effectiveness of this innovative vocational education system.

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